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R. Holmes

1962 - 1964

Alaska

Journal

1962: Alaska: Barrow, Barter Island  
[feeding observations, census plot,  
insect sampling]

1963: Alaska: Barrow, Cape Thompson  
Canada: Banks Island  
Alaska: Barrow [insect sampling]

1964: Alaska: Barrow



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1962: Alaska: Barrow, Barter Island







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1962

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28 May Barrow, Alaska

Arrived at 1000 at Barrow International airport. The general appearance of the snow cover in the vicinity of ARL + Ikroavik was that spring is late in coming. Snow is still covering most areas - except for patches of ground near Voth's Area + near the dewline site. Spent the morning getting settled + straightening up the lab. [2 Golden Plover in FT print on 26 May - Cade].

In the afternoon - drove to the beach ridge, central marsh, + gasline ridge. The tops of these elevated areas are beginning to clear but even here the exposed areas are glazed with a layer of ice. Very little sign of lemming activity was noted; 1 Glaucous Gull was seen.

After supper, drove to Voth, Denali Gate, Denali ridge, Ikroavik + Footprint Lake. Snow conditions in the area are about the same as central marsh except there are a few more open grass-covered ridge tops. Actually, the snow does not seem to be very deep + several warm days covered cause quite a change. Birds: A. Longspurs; Snow Bunting - 15+; Wheatear - 2; Sandhill Crane 3; Glaucous Gull - 40+<sup>-40+</sup>; 2 Snow Owls.  
<sup>- mostly near shore</sup>



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2.

28 May Barrow, Alaska

The wangan at Ikroavik was checked. It had been broken into during the winter & numerous supplies were missing.

No shorebirds seen today. Only ones reported are the 2 Golden Plovers seen by Cade on 26 May.

29 May Barrow, Alaska

Weather cloudy with light snow falling all during the day. Wind from N + E in the morning - shifting to SE during the afternoon & evening. Snow conditions seem about the same; more exposed areas were found on the high bluffs along the shore of Elson Lagoon below the duck camp at Bernice & Oskipik slough. The permafrost depth varies from 0 to  $1\frac{1}{4}$ " (in the mossy areas).

0800-1200 - cleaning up lab & skinning waterfowl.

1230-1630 - Drove to Elson Lagoon: Longspurs (L.L.); Snow Buntings (S.B.); Ruddy Turnstones (R.T.); Pectoral Sandpipers (P.S.); Red-backed (R.B.) and Baird (B.S.) Sandpipers, Golden Plovers. Drove across Beach Ridge (sev. ♂ L.L.) to Voth area & then back to camp. 1 R.B. & sev. LL seen & 1/2 heard in this area.





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3.

29 May BARROW, ALASKA

Several large (100+) flocks of Eiders - most ♂♂ were seen flying over the tundra near the shore of Elson Lagoon - so. of the duck camp. (Common + King were identified) Continued snowing until midnight - at which time most of the old snow + roadway were covered with  $\frac{1}{2}$  of powdery snow.

30 May BARROW, ALASKA

0800 - 1200. Drove to bluffs along Elson Lagoon.

Weather clear + calm. Birds: 3 Ruddy Turnstones, flock of 7 Dunlins, 3 G. Plover, sev. pr. Longspurs + buntins; 1 Knot; 300 Eiders (200 ♂♂ - 130 of which were common; 70 - King); 1 Glaucous Gull

1330 - 1730. Drove to Denali Gate + beyond to the creek which drains into village slough.

1 Redpoll displaying near Britton's area (another on wing); 2 ♂♂ Snow Owls; 1 Cliff Swallow; semi-palmated Sops - 6; Rufous-necked Sandpeeps; Longspurs + buntins. Cold wind

3-8 mph) picked up in the NE during the afternoon.

By this afternoon - The snow was really starting to melt - the ridgy areas near (both) Ake were almost clear of snow; Goshawk ridge was  $\frac{1}{2}$  clear + the snow seemed to be going fast. The hills seem to be the grassy slopes + ridges where are first exposed - rather than the tops of high centers.



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30 May Barrow, Alaska

polygons. This applies particularly to shorebirds  
1930-2130. Drove to Uth Area - to check again  
on E. ruficollis - could not locate it again.  
Tried to record red-bush displays but  
recorder gave out!! Sev. RB, S.P., B.S., L.L.  
seen. Headed east to gas line ridge + the  
beach ridge - the tops both of these are starting  
to open up + considerable ground is exposed -  
but no birds seen except an occasional  
longspur. The birds are only in the grass-sedge  
areas. 6 Wt-br. Geese; 2 old squaws

31 May Barrow, Alaska

Spent morning preparing specimens + checking  
supplies out of the store room. In the afternoon -  
no weasel was available - so I worked  
in the lab + had a talk with Drews.  
Drove to the beach ridge off the sags -  
but weasel broke down + I walked  
in. Two glaucous Gulls seen in the  
dune area. Weather stayed below freezing  
all day - with a cold so-s-e wind  
blowing + a low cloud layer. Snow fall  
at intervals during the day.

1 June Barrow, Alaska

0800-1200 Drove to bluffs along Elis Lagoon. In  
just N of Whiskey Slough to Dookyeik  
slough. Weather overcast with 10 mph E-NE wind.





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1 June BARROW, ALASKA

There are now patches of clear ground 5 to 50' in diameter on the bluffs. There are more less in tundra. & do not extend out (in) to the tundra very far. The top of the beach ridge is also becoming clear - but only a few Longspurs are seen there. Nearly all the shorebirds seen to date - have been in these large bluff areas: 1 Baird Sandpiper, 35<sup>+</sup>, 17 Longspur; 30+ Dunlin - some paired some in flocks; 20<sup>+</sup> Pectoral Sandpipers (+ 1 ♀); 10 Ruddy Turnstones, pr. of Golden Plover [1 flock of 11 RB, 4 Turnstones, 3 GP + 1 ♂ Pectoral Sdp.].

1300 - 1530. - Went to Voth's Area - the high ground on the east side of the Voth road is quite open - 1 area 300 x 100' - this had a flock of 12 Dunlin; 5 Pectoral + 1 Baird. Another band was seen west of the road near the traplines - as well as at least 3 Sanderling. Scattered pairs of feeding +/or chasing Dunlin were found where there were open ground. 1 White-tr. Goose

See map on the next page for rough sketch of snow conditions:



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1 June BARROW, ALASKA







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2 June Barrow, Alaska

Morning spent in the lab - preparing specimens + checking soil samples. Found edge sample contained Sw. Tipped larvae. 1300 - 1630 - Maher + I went to Elson Lagoon between Wohlsehlog + Dokpile Sloughs: Red-tail Sdg - numerous (30±); 4 Pectoral (1 pr) Sdg; 3 Ruddy Turnstones; 5 Pomarine Jaegers; 1 Wh-br Goose; many Longspurs; Sw. buntings; 5 Common Eiders. At Vah Ave - 1 Golden Plover, 2 Semi-pal Songers - 4+ Dunlin.

Weather overcast - quite low at times - light (5-10 mph) wind from the north. General warm - snow was getting soft + mushy in places. The snow is going rapid along the Elm Bluffs + Vah Bluffs - but still seen quite deep in central mass + along the beach ridge. The steel are vast areas covered by snow - which are not yet exposed.

3 June Barrow, Alaska

Frosted all morning - but very little of it was sticking. Worked in the lab on specimens + soil samples. 1300 - 1630. Drove to Elson Bluffs - Sw. displaying red-bills. 2 ♂ + 1 ♀ Pectoral Sdg., 1 Semi-pal Sdg; 3 Ruddy Turnstones; Longspurs, buntings, 2 Snowy Owls; 1 Sandpiper. Near Vah Ave saw Dunlin + 2 Sandpiper.



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4 June Barrow, Alaska

Drove with Yago. to Voth Ave + then across to  
Elsa Lagoon - returning via the beach ridge.  
Weather was partly clear with bank of  
fog lifting + then settling again. Light  
easterly wind. 2 Sanderlings near Britton's  
Area - several Dunlin, Semi-pal + Turnstones.  
Longspurs, Bunting - 1 Snow Owl just S of  
Voth's Area - 1 Pectoral, sev. Dunlin +  
R. Turnstones on Elsa Bluffs.

In the afternoon - returned to Britton-Voth  
Area + saw 3 Sanderling (the pair + 1  
other - well marked bird); semi-pal +  
Dunlin - 1 ♂ Pectoral in Britton's Area.

It seems now that Dunlin are  
moving out to areas that are just  
becoming exposed. They are seen & heard  
now in most places - on Britton's  
Area to Voth Ave - on the slope S. + E of Voth  
on the west plot + on the open tundra  
near Elsa Lagoon. Pectorals, just seem to  
be getting established with 2-3 smaller  
males near Elsa + 1 in Britton's Area.  
Semi-pal are distributed along ponds  
salt lagoon + Voth Creek - but not anywhere  
else. Bards - is still not present in  
any numbers. No sign of fuscirostris yet. The G.  
Plover are here in small numbers but



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4 June Barrow, Alaska

not yet very numerous. The snow conditions are such that much ground is exposed yet - but what regulates the number of birds moving into the area. - since no observable flocks are seen - there just appears to be birds occupying the available habitat. - must keep this in mind.

5 June Barrow, Alaska

Morning spent in lab working on specimens & stomach contents. In the afternoon, I drove to Britton's & John's Areas - where considerable ground is exposed on the bluff overlooking the lagoons & now on the ridge that runs west toward the village - located about halfway between D. & U. Areas. - 2 flocks of Kurles & Voted pairs - several pairs of semi-palmated Scaup; 1 Baird Scaup; 1 Golden Plover; 2 pr. A. Tring; 1 Snowy Owl; Longspurs, buntings, 3 Sanderling (with a flock of Dunlin), 3 Pintail, 20 Glaucous Gulls (inc. 2-3rd year birds - 1 coll. by D. A. Muller); Weather - overcast - 10-15 mph North wind blowing - Temperature seemed to stay below freezing all day - all ponds were frozen over - except the large ones where the wind had opened up (very few lagoons were open however). Snow was being blown over exposed tundra &



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5 June Barrow, Alaska

was starting to accumulate. Snow hard & crusty.

Lemming sign is generally poor - over most parts of the tundra - some runway activity & seemingly fresh pellets are seen only occasionally - As yet - only the higher habitats are exposed & when the troughs & lowlands are eventually free of the snow more sign may be found. The Drum area behind APC seems to be the most productive & to show the best sign. Cack has collected several there & Gulls & Snows Owls are concentrating in the area.

6 June 0800-1200. Weather overcast - light NE wind - cold. All ponds were frozen & snow was crusty. By 1100. many ponds were broken free of ice & snow was softening. On p. 11 of E. again - There is a mark on existing snow condition today. The top of the Bear Ridge is coming clean of snow - as are all the bluffs along E. side, middle salt lagoon (incl. Driftwood (Area), insect ridge & village sloughs. The Ikroavik plot is still covered - only a few blades of grass are seen poking through at the very highest areas. A patch 40' x 600'





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6 June Barrow, Alaska

es open south (No census-plots). Britton's Area: RB,  
S.P. - 1 Sanderling, 2 R.T. ; Insect plots - 1 R.B.;  
Village Slough Bl-th - sw. RB, sev. S-p. ; 1 ♂ Snow  
Owl ; sw. Longspur - ♂♂, chipping ; Shroaith :  
RB + White-rumped - soil plot ; 1 Pomarine Jaeger  
Voth Area : 1 ♂ Pectoral Scp ; sw S-p. Scp.  
1300 - 1630. Else Bl-th - No. Wad's chly - 3 pr. RB ;  
2 R.T., pr. P.S. Soil Wad's chly → Oot plots:  
4 R.T. - flod 16 ♂ P.S. ; sw. R.B.

7 June Barrow, Alaska

Weather overcast but no wind in the  
morning. Light N. breeze during the afternoon  
with some sunstreaks. Ponds were thawed  
by 0800 - snow became slushy quite fast -  
in many areas along the beach ridge +  
then became exposed.

0800 - 1700. Voth - Britton Area - 5 Sanderling,  
15+ Red-tails ; 2 Baird ; 2 Pectoral ; 20+  
Semi-pal ; 1 Golden Plover ; 4 Ruddy Turnstone ;  
1 Pipit (collected) ; Longspur + bunticks

1300 - 1700. Beach Ridge (2 RB, 15-p. - along  
N. part of ridge - nothing in Pitelke's Plot).

Else in lagoon - flock of Pectoral, sev.

RB, sev. R.T. , 2 Pomarine Jaeger ;  
Longspur + bunticks . 2 Snow

Owls along the beach ridge - 1  
near white-rumped - 1 on Pitelke's Plot.



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## Journal

12.

8 June Barrow, Alaska

Morning spent in lab working on specimens. Sullivan arrived late in the morning, as did Gary Stevens. Weather overcast - 10 mph East wind blowing. By afternoon - the sky was partially clear - + by evening - the sun was shining brightly (until a thick wet fog settled around 2100). The snow stays hard during the morning + was still crunchy at 1300 - but by 1700 - everything was quite slushy + great amount of snow melted - leaving the top of the beach ridge - part of Elson Lagoon bluffs + Voth area - exposed. 1300-1630. Drove to Elson Lagoon - where saw lge flocks of Pectorals were seen moving south; 2 Curlew Sandpipers; 1 Golden Plover, sev. Dunlin (no flock - some group 14 [2 pr] however), Longspur-bunting - 2 Long-billed Dowitchers. 1930-2200. Drove to Voth area - watch sev. Red-bellies - heard fog - little seen - Red Phalarope - sev; Old Squaw.

9 June Barrow, Alaska

0800-1200. Drove to Britton's Area - Old Squaw, Pintail, Ruddy Turnstone, 1 pr. Red-bellies - to Insect Ridge - 1 pr. Red-bellies - Polygnots become exposed - ponds all snowed in just the tops of stakes showing. No birds seen between there + Anaktalik Gate - bluffs



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9 June Barrow, Alaska

above Vellox Creek - except Longspur + 3 R.  
Phalaropes. <sup>on bluffs</sup> Semi-pal Sops - 2 pr; - 2 pr  
Red-bock; 1 pr. R. Phalarope; large  
flocks of Pectorals (49+).

at Ikroavik - The tops of polygons in the  
plot are becoming exposed - sev. Red-bock, +  
Longspurs were seen. The ridge at the south  
end was becoming quite clear of snow -  
+ again redbock were seen + heard displaying.  
Pomarine Jaeger - 2; Snows Owl - 1; flock of  
400 Eiders - fly over for Footprint.

<sup>1930 - 2130.</sup>  
1300 - 1700. Spent the afternoon in + near  
Britton's Area: Curlew Sandpiper; Wilson's Phalarope  
2 white-rumped Sandpipers; many Red Phalaropes;  
1 Sanderling; sev. Dunlin, sev. S-p. Sandpeeps, 1  
Barn Swallow, flock of Pectoral Sops; Pintail, Old  
squaw; 2 Baldpate; 2 Longspur nests; bluffs:  
3 Savanna Sparrows

Weather overcast with light (cold) E  
wind. Snow melting fast - water standing  
on top of ice in Voth Creek - one weasels fell  
through at the X-ing. Snow + pond ice slushy.

10 June Barrow, Alaska

0820 - 1200. Britton - Inset + Voth Area: Pectoral,  
Barn, Dunlin, + Semi-pal. Sops; 1 Golden Plover,  
1 Pomarine Jaeger; 1 Snows Owl, Longspurs +  
duntings. Weather clear + sunny - very cold NW breeze



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10 June Barrow, Alaska

Here, arrived in the late morning. He & I went to Elson Bluffs - No. 1 Woblesby & the back of the Beach Ridge - Central Marsh - etc. Several flocks of Pectorals, sev. displaying Dunlin & Bairds, Pomarine jaegers - courting; Snows owl, Yellow Wagtail; Sandhill Cranes - 1.

In the evening Hines & I went to Britton's Area & barrel ridge: Black-bellied Plover, Golden Plover, 2 Long-billed Dowitchers; Sev. Dunlin, Semipalm & Pectoral displaying, 4 Stellar Eider, sev. Pintail & Oldsquaw, Red Phalaropes.

Weather today - clear - no wind - temperature up to 60°F - fantastic June day! The snow is going fast - very soft - places & water is running off in streams - The sloughs are all impassable - large areas on top of beach ridge are now exposed.

11 June Barrow, Alaska

Morning spent in the lab & went to airport to meet Dr. Pitelka. In the afternoon - drove Pitelka & Dr. & Mrs. D.S. Farner to the Beach ridge. Late the beach ridge & gasline ridge were checked - as were Voth Area & the insect plots. Weather: clear & sunny - snow going fast - most areas now are opening up - & snow in trough is very slushy with





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11 June Barrow, Alaska

water underneath - making for difficult walking. The ponds on the hill at the insect plots are starting to open up + will be open completely within a couple of days.

Numerous jaegers (Pomarine) - mostly single + pair - occasionally 3 + 4 - seen flying over Voth Area + Central Marsh. A pair seemed to be settled on the W. side of central marsh - near meadow lakes + another pair in Voth Slough - in both cases - on the bird + ground. - Several Snow Owls seen - Barrow Ridge. The amount of aerial displaying by shorebirds was again quite low.

In the evening - went to Elson Lagoon - north of Woblesley Slough - weather still clear - + snow getting softer + softer - large areas of the B.R. were opened up today: 13 Dowitchers - 2 Curlew Sigs - 8 Pectoral Sandpipers - R. Phalaropes - many - Golden Plover - Ruddy Turnstones - Pomarine Jaegers, Red-bellied - Barrow - Semipal Sigs.

12 June Barrow, Alaska

0900 - 1200 - Went to Elson Lagoon - No. 1 Woblesley - spent all morning watching the 2 Curlew Sandpipers - who were counting. Pomarine Jaeger set; 1 Parasitic Jaeger; Snowy Owls; sev. R. Turnstones



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12 June Barrow, Alaska

Dunkle, Baird, Sem- got leg - 2 Snow Geese flying south along E. lagoon; Pintail & old Squaw in outer marsh ponds. Weather slightly overcast in the morning - clearing but still partly cloudy during the afternoon - warm - light breeze from East. Snow going fast - large area of open water - edge of inner marsh now exposed - area between D.R. & E. lagoon - slushy - ice - Several areas of <sup>low</sup> tundra which have been covered - now showing signs of lemmings etc - several lemmings seen. Afternoon spent in same area - evening at Muller's with Pitelke & country notes.

13 June Barrow, Alaska

Worked in lab until 1000 - then went to Insect Plot - took sample - over 3 pools open. Drove around out - across Voth lake (slope) to goose ridge to beach ridge - picked up Pitelke, returned to A.R.L. Bird actively released. After lunch - Pitelke & I went back to E. lagoon - could not find E. ferrugineus. In the evening, I went to Britton's Arm - saw semi-palmated & Bairds - 2 pr. R.B. Weather overcast in the morning with strong (10 mph - N.E.) wind - sunny with light breeze during the afternoon & evening.



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17-

14 June Barrow, Alaska

0830-1730. Sullivan & I went to gasline ridge - checked traps - to set up census plot - but last slough was not crossable. Hacked S. & around dry lake - to Shroun. We censused plot & returned via gasline. Weather clear & sunny - light 5-10 mph NW wind. Snow melts fast - only left now in trough & other protected areas. Much water - collected in all basins & troughs - since the sloughs are not open yet - travel difficult.

In the evening, P. Felke & I went to Bird Ridge & walked across - S. of middle salt lagoon. No wind - sunny & clear.

There has been very little bird activity during the past 4 days & poor weather - displays are heard only occasionally & birds seen quite scattered.

15 June Barrow, Alaska

Morning spent in the lab writing notes & preparing specimens. In the afternoon - I went to the B. Ridge - heading for Elson Lagoon - when I sank & weaved, so by the time I walked back to camp & got another. The afternoon was well shot - except for a big west along the beach ridge. Weather all morning was clear & sunny. Temp



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18.

15 June Barrow, Alaska

in the low sixties - This continued through the early afternoon - but by evening dark clouds & a cold NW wind had settled in & it was cold & foggy by 3000 - with some rain.

In the evening I drove Dr. Klaus Schmidt-Koenig from Duke University to the Beak & Gosline Ridges & checked the area for shorebirds - little activity was noted - apparently since it was raining.

16 June

Skinned the godwits & finished the insect sample #1 during the a.m. In the afternoon - Holmes & I took Pitelka to Beak Ridge & then went to Elm Lagoon - where we found at least 5 Curlew Sandpipers & numerous Red Phalaropes, a flock of Pectoral Sandpipers, sev. Dunlin, sev. R. Turnstone, & sev. Golden Plover, 3 Pectoral Greys & sev. Pomarine Jaegers. Drove across central marsh to Cashe - got Hays & insect plot - where sample #2 was taken. Returned at 1745. In the evening Pitelka & I returned to Elm Lagoon - I saw 2 Curlew Sps. Weather overcast during the morning but clear & sunny in the afternoon & evening. 10 mph NW wind blowing during most of the day.





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19.

17 June Barrow, Alaska

Beard Ridge checked in the a.m. - several Dunlin & Black-Phoe Pom. & Para. Jaegers, Golden Plovers, sev. Snowy Owls. In the afternoon, P. Itelle & I went to Elson Lagoon - located a pair of Curlew Sdg. - After supper, Stevens & I went to Dr. Hen's & used a recorder to record bird songs & locate nests - sev. nests were found but the recorder was not operating properly. Weather overcast with light breeze during the morning & afternoon - sunny & calm in the evening.

18 June Barrow, Alaska

Specimens & insect sample worked in the morning & partially in the afternoon. A short trip was made to Beard Ridge where 5 Snowy Owls & 1 pair of Curlew Sdg. were encountered - as well as sev. displ. ♂ pectorals & pair of Golden Plovers. In the evening, Sullivan & I checked the live traps - beard ridge & met P. Itelle - spent some time checking the Curlew Sdg. - returned at 11:00 p.m. Weather overcast & NW wind - heavy fog & rain in the evening.

19 June Barrow, Alaska

P. Itelle & I went to B. R. in morning - could not find Curlew Sdg. - due to strong W. wind. Bird activity very low. Afternoon - evening



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19 June Barrow, Alaska

Spent at the lab preparing for trip to Ikroavik.  
Weather partly cloudy - 10-20 mph N.W. wind.

20 June Barrow, Alaska

Made final preparations for trip. Hines & I left at 1300 - Arrived at the Ikroavik wannigan at 1430. Set up gles & censused the NWT 40 area from 1530 - 1830. - weather cold, windy & foggy. Birds generally inactive. Walked North of the wannigan to wannigan creek & then toward the lake. Wind had let down & was only blowing 0-5 mph. & fog lifted & birds were more active. Nest-finding increased & it seemed that the birds (particularly phalaropes & Dunlin) returned to their nest more directly & more quickly.

21 June Barrow, Alaska

All day was spent on the Ikroavik plot with bird activity at a minimum - due probably to a 10-15 mph NE wind & occasional fogs. Left the wannigan at 1400 - went to the insect plots, took sample #3, & arrived at ARI. at 2015. Weather still overcast & windy.

22 June Pitelka & I spent morning on the beach ridge watching the Curlew Sandpeeps. Lab work was done during the <sup>early</sup> afternoon & then we returned to the B.R. - went to the gasline for



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26.

22 June Burns, Alaska

more observations. In the evening - I worked on Portenko's paper - Arctic Sdg - with the help of Dr. Schmidt-Koenig. Weather was partly clear - but light NW breeze (~5 mph) was blowing.

23 June Went to the field - B.R. at 0500 & took one recording of the Arctic Sdg. song. The sun was out, the sky being clear - but a light wind was blowing from the E. - making recording difficult. Late in the morning - I drove along No. B.R. - down into the flats - toward Elson Lagoon - where I located another display of Arctic Sandpepper - however none were found near the lagoon - where they have first been located. Large flocks of Pectorals present near receiver site & in general there was an increase in Pectoral activity - more displays - more chasing. Bird activity was quite poor however - the wind seems to be very depressing. The day remained clear - but the wind increased by 0900 to 10-15 mph. The tundra is drying out very rapidly - most of the upland areas are now very dry & the ponds are shrinking fast.

24 June Left for Ikroavik at 0730 - weather overcast, foggy & rainy - wind 10 ± mph - NE. Continued the plot - despite weather birds inactive - virtually no displaying.





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24 June Barrow, Alaska

In the late afternoon - I walked the ridge to the south of the plot & then to the west - seeing little except occasional Dunlin, ♂ Pectoral Sigs, & Dunlin.

The white-rumped sdp. was observed near the south end of the plot.

I returned to the camp late in the evening. Weather remained windy & misty all day.

25 June Barrow, Alaska

Went to Bevel Ridge & walked north ridge - to Curlew Sdg. areas - where only the ♂ was seen - walked into camp. In the afternoon - the insect vacuum motor was renovated - but would not work - so Hines & I went to the insect plots & took pond samples & observation plots. Weather = cloudy - 8-10 mph. → NE - slowed to ~ 5 mph by late evening - when the sun came out.

26 June Barrow, Alaska

Pitelka, Hines, & I went to the Bevel Ridge & found NEST OF CURLEW SANDPIPER with 3 eggs - returned at 1200. Weather clear with light No. breeze. In the afternoon - one of Behncke's men & I went to the insect plots - took a vacuum sample. In the evening, Pitelka & I went to the Bevel Ridge & central marsh to check traps - found a ♂ Curlew Sdg.



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23.

26 June Barrow, Alaska

E of AACs + 3 Sanderling - So. of the B.R. - near  
Meadow Lake. Returned at 2200 - went to  
Mullen for a happy hour + then return  
to the Bear Ridge with Gary Stearn  
to recat the Sanderling. Came out  
0130. - when a light breeze (NW) + light  
snow started falling.

27 June Barrow, Alaska

Went to Ikroavik + consumed all day - return  
via Gasline + So. central marsh where  
2 knots were collected. Weather  
partly clear - usually with a high  
overcast - light North or NW breeze.

Birds generally quiet - several flocks / Pectorals.

28 June Barrow, Alaska

Morning spent in insect sample processing +  
then walked from Volt Ave to Britton's Area -  
Bird display poor; 2 RB, sev S-p - 1 Pectoral,  
no birds. Weather sunny with 5-10 mph  
East wind. Went to Ebnr Wildlife - evening stream

29 June 2<sup>nd</sup> Curlew Sandpiper nest.

Took Hume + Pitelko to see new Ferruginous  
nest + then dropped them on the Bear  
Ridge census plot - + went South / North  
Slough + Doodlip Slough - collected  
three nest-boxes. In the afternoon -  
Hume + I took a full set 1 minute



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29 June Barrow, Alaska

Samples - including pond edge - vacuum + observation plots. Weather clear but 10-15 mph - SE + E wind was blowing.

In the evening - we all went to Schmidt Koenig's seminar in bird orientation.

30 June Barrow, Alaska

Morning spent in skinning birds + picking up on lab work. P. Feltham left at 1100.

Harris + I went to Beach Ridge + found Cullen Sdp nest #1 destroyed - then drove to gas line ridge - east to Wohlsehoy Slough - checked on C. Sdp #2 + found the ♀ still incubating - went N. along east side of Beach Ridge + then across the ridge into central marsh - where 85 Long-tailed Jaegers were feeding. - No sandpiper displays were seen or heard today - + there was very little bird activity at all. Weather was clear + warm - with a light W or S. breeze - lots of mosquitos + other insects were out.

Went to Voth Area in the evening - 1 pectoral displaying near Trapline 11B - only RB head was one flushed from a nest. Two Semi-pals - Chasing: This was the extent of display activity. Weather became overcast - but remained warm + sultry - fewer mosquitoes than the afternoon.



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1 July Barrow, Alaska

Weather: raining lightly in the morning but just low fog + mist with 5-10 mph wind in afternoon. Morning spent in lab working on insect samples + specimens. In afternoon - went to Voth Area to check on hatching nests. Mullen + I left for Ikroavik at 1900 - arriving there at 2000. Weather - high overcast - light northerly wind. Set out gill net (after untangling it!) along the west shore of Ikroavik.

2 July Barrow - Ikroavik, Alaska

Crossed plat from 0900 - 1400 + returned to Barrow during the late afternoon after checking nests on the way. Weather calm but overcast + drizzly in the a.m. - raining with light N. breeze in the afternoon - partly clear by evening.

3 July Morning spent in lab until 1000 - then went to Bevel Ridge to check on Curlew Sdg. Nest #1 again. But no ♀ - as before. Then went to South end of Bevel Ridge + found ♀ #2 sitting on the nest. Picked up Hens + came in for lunch. Hens + I took the insect samples during the afternoon. Weather in the morning - was overcast - cold N. wind (5-8 mph) with snow flurries. - remained cold + windy during the afternoon - occasional intervals of sun.





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4 July Barrow, Alaska

Worked in lab during the <sup>early</sup> morning & specimens -  
Then went to VOR area to check & nests. Few  
more Pterodroma nests were hatching.  
Afternoon spent in working & insect  
samples - nearly finished them with  
the help of Huns & Sullivan. Weather  
overcast, cold N. wind during the A.M.  
with a few snow flurries - clearing  
during the afternoon - so that it was  
clear & sunny by evening. By 2200 -  
the wind had slowed down to -  
very light N.W. breeze - making work  
on the tundra very pleasant. Went to  
fidelity plots & Bend Ridge for 1930 -  
2200. Little bird activity -

5 July Barrow, Alaska

Huns & I left for Ikroavik via fidelity  
plots at 0800. Arrived at Ikroavik  
at 0945. Censused Plot for  
1000 to 1600 - returned to APR.  
Weather clear & sunny - but a cold  
7-12 mph east wind was  
blowing all day - it was cloudy  
& windy during the evening.

The tundra is very dry at this time. The  
sparse vegetation has few deep roots  
not sufficient to evoke any run-off. On the



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5 July Barrow, Alaska

census plot. most of the small ponds & all of the polygo. trough are dry. The large ponds are still wet but are greatly reduced in size.

The bird activity is falling off rapidly. No pectorals were heard displays today & Dunlin displays is decreasing.

6 July Barrow, Alaska

Part of the morning spent in the laboratory working on specimens - Then I walked out into the dunes area. Weather clear - with 5 mph W. wind blowing. Bird activity generally poor - no displays were heard. In the afternoon - went to Beach Ridge & Central marsh to Elk Lagoon. - overcast with 10-15 mph W. wind. Did lab work all evening.

7 July Went to Beach Ridge - E of Magnetic Station & marshy area to north to take feeding trials - recorded several Dunlin & Pectorals. Collected a Dunlin with band. Weather overcast - but calm - no wind - mosquitoes & other insects abundant! In the afternoon Hines & I took insect samples & observations in The Insect Ridge locale. Weather clear - with 3-10 mph westerly wind - insects abundant - bird life quiet - except for small numbers of Long-tailed Jaegers & a few Parasitic Jaegers.



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8 July Barrow, Alaska

Worked on insect samples during parts of the morning & afternoon. Went to The North Woblesley area to check on The Curlew Sdp - which was not present - no sign of eggs or ♀ - chow were noted. Saw 2 caribou near Elson Lagoon. Weather - partly overcast - but windless & warm - mosquitoes were thick. In the afternoon, I returned to check more thoroughly on the absence of the sandpiper - by this time a 2-3 mph westerly breeze had risen & rain fell for about 45 minutes. Many jaegers - mostly long-tails were seen in the marsh & east toward Elson Lagoon. Little shorebird activity.

Stevens & I went to Innaavik at 2130 - high overcast - light NW wind. Warming up had been burglarized & much of the food stolen.

9 July The plot was censused from 0930 - 1330.

Weather clear & sunny - light northerly breeze during the afternoon. Re bird activity - the plot was nil! Hardly any birds were seen heard [1 RD displaying, 2 small flocks of 1 RP, 1 ♂ Peetom, seen jaeger flocks - & nothing more except a few incubating birds]. Left the Warming at 1400 - drove around the south end of the lake - &



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9 July Barrow, Alaska

North to Dry Lake - (where a large Caribou was seen) - to Oblique Slough - Central Marsh & camp.

10 July Barrow, Alaska

Went to North Line - insect plots & ridge & man to the north - for feeding records & to check on Shabber activity - which was in general poor. Weather overcast - 10 mph - E wind.

In the afternoon - I travelled along the B.R. - & NE of the magnetic station - weather still cold & windy.

Several young birds found - RB, RT, & BP.

11 July Day cold - overcast with 3-8 mph - easterly breeze. In the morning - I went to

Beach Ridge - Gasline Ridge - central marsh - Woblesley Slough & back - Many (120+) Long-t. Jaegers hanging around - mostly feeding a mass - but probably would take eggs & chick if they were encountered. Banded a brood red-bellied & 1 Alphas on Pitelki's Plot - took some feeding records.

In the afternoon - I went to house area - took observation record & vacuum & pond samples. Made some feeding record on return. Evening spent in processing.





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12 July Barrow, Alaska

Went to Ikroavik in the morning + walked the plot. There was no bird activity + most of the nests were empty - no sign of the adults +/or young. Several groups of long-t. jaegers were present - 2 snowy Ols were in the plot.

In the afternoon - I made feeding observations between the Voth Area + Insect Ridge - 8-10 Dunder, 3-4 Pectoral 800; 2 semi-palmated Scaup - were in Inana. Weather today was overcast with light E-S wind.

13 July Barrow, Alaska

Morning spent finishing up insect samples + specimens. In the afternoon Muller + I took Dr. and Mrs. Tracy J. Storer to the Beach Ridge + Central Marsh. Weather was overcast + a cold Easterly breeze was blowing (5-8 mph). In the evening - Net + specimens were worked on.

14 July Barrow, Alaska

Morning was calm + overcast with many mags + a few mosquitoes in evidence. In afternoon a cold 5-10 mph NW breeze was blowing. In the morning I went to Eison Lagoon + Woblesley Slough - returning via Central marsh where I picked



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14 July Barrow, Alaska

up Pete Savouk & Warren Esler (Folk's pugut) who had a broken-down vessel. In the afternoon - I went to Voth Area & insect plots & took several bird samples. Several Quilins, 1 ♀ Pectoral, 1 Semi-palmated Lp were seen as well as several Golden Plovers. No young birds were located. Notes written in the evening & samples processed. Ice went out yesterday - but is still visible & 1/2 mile or so off shore.

15 July Barrow, Alaska

Stayed in during the morning & worked on specimen & stomach contents. In the afternoon - went to Insect area & took samples, observation records, etc. Weather overcast with 3/4 type easterly breeze.

16 July Barrow, Alaska

I went to Ikroavik during the morning. Bird life was essentially nil - on the plot - but seen elsewhere - except King-b. Jaegers. Weather clear, warm & calm. Light breeze during the late morning. In afternoon it was overcast with a cool S-W wind. It began to clear from mid-midnight. Afternoon spent picking insect samples.



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17 July Barrow, Alaska

Weather clear, sunny, & warm - 60°F +.  
Many mosquitoes were out - as well as an insect. I went to Bear Ridge & Central Marsh during the morning. Saw a flock of Dunlin. In the afternoon <sup>and evening</sup> Specimens & insect samples were processed.  
Weather remained clear - but a light N.W. wind was blowing.

18 July Barrow, Alaska

Weather clear, calm & warm. In the morning, I went to Bear Ridge - Wohlschlag flogged to check on nests - there is still one active Dunlin nest near the S. end of the B. Creek. For Caribou seen just S. of Wohlschlag near the crossing & 1 near Brant Point. In the afternoon & evening - I finished the insect samples & processed specimens. Late in the evening, Schultz, Probst, Boyd, Bohusack, Kauff, Sullivan, Delwiche & I held a conference on seasonal cycles of the tundra ecosystem, which was profitable for all.

19 July Barrow, Alaska

Weather overcast in the morning & a light easterly wind was blowing. By 1100, however, the clouds were gone & the wind had stopped. The remainder of the day was clear & warm, with only



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19 July Barrow, Alaska

occasional breeze (6-15 mph). Specimens were processed during the morning & in the afternoon, insect samples were taken. Only bird activity noted is several small flocks of Golden Plover, Lesser & Pectoral Gulls - near Voth Area. No jaegers noted.

20 July Barrow, Alaska

Morning spent in lab working on specimens & insect samples. In the afternoon to Ikroavik & returned via Voth. Weather overcast at Ikroavik - low fog near coast - some mist. Rain & fog in the morning. Few birds noted. (several flocks of RDs - Golden Plover & small groups of Pectorals).

21 July Barrow, Alaska

Worked insect samples & specimens in the a.m. - went to insect area, took soil samples, drove to Central marsh - So. end of B.R. - left - Logan & back via AKCS - in the afternoon clear - heavy fog - when would left for short period & then dry again. Little bird activity.

22 July Barrow, Alaska

Finished processing soil samples in the morning & then went to Ikroavik during the afternoon. Weather overcast -





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22 July Barrow, Alaska

with 10-15 mph east wind. Several flocks of Pectoral Sigs in Footprint Lake & large groups of Phalaropes at the Wannegan inlet to Ikroavik.

The tundra is still very dry despite the rain two days ago. Many of the plants are now flowering - Eriophorum is in bloom in patches all over the tundra but perhaps most commonly or densely in Footprint Lake. Papaver is distributed in the well drained areas - polygon tops, ridges & certain parts of Footprint. Also in the dry lake, the Senecio congestus is in full bloom. In the ridges & polygon tops - Stellaria is everywhere - as well as a number of Saxifraga - most commonly S. punctata & cernua. Petasites frigidus is blooming everywhere & the large dark green leaves in some areas form dense mats. Potentilla is blooming in drained areas. Many of the grasses are starting to head & the tundra has been very green during the last week - due to this year's growth. Lemnaceae growing so well enough to cover the dead material. Lemmings are still not seen commonly.



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23 July Barrow, Alaska

Worked on specimens & finished insect Sample #10. In the afternoon - I went to the insect plots & took more samples. The number / adults insects has markedly decreased. - The tundra is still very dry & the ponds are becoming smaller & smaller. The samples are now taken in mud at the pond edge & therefore chironomids are forming a large share of the insect - but even these are decreasing - since probably most of them have emerged. As yet - the egg-laid this season have not produced observable young.

In the evening, specimens & insect samples were processed.

Weather was clear - but a strong (5-15 mph) east wind was blowing.

Muller & Huns returned from the Inarar.

24 July Barrow, Alaska

Worked in the lab on insect samples all morning. Mah left via Uliar at 11:00.

In the afternoon - went red-duck hunting in No. 100 - No. 100 slough area - found a flock of 6. Several flocks of Pectorals included, some ♂♂ are also present in the area. Weather overcast but calm in the morning - low fog & dark clouds with 10-20 mph - NW wind in the p.m.



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25 July Barrow, Alaska

Worked in the lab all morning on bird specimens. In the afternoon - I went to Bear Ridge + Elsa lagoon (vic. of Brant Pt). Weather overcast - 10-15 mph NW wind. Little bird activity.

26 July Barrow, Alaska

Specimens processed + insect samples completed during the morning. In the afternoon, I went looking for pugs in Voth + vicinity. Little activity was noted - 1 small group of Dunlin, several Golden Plovers, + 2 Long-t. Jaegers. Longspurs are present in small numbers - in groups.

Weather overcast + calm in the morning - 10-15 mph N.W. wind during the afternoon. Rain started during the late evening.

27 July Barrow, Alaska

Weather: hard, driving rain during the early morning hours - stopping by 0900. Stormy NW + WNW wind blowing all day - with fog + very low ceiling. - scattered showers + mist (wind 15-30 mph) Ocean with large breakers.

Morning spent in lab working on specimens + stomach analysis. In the p.m. - Hines + I took insect pond samples + measured the upland ponds.



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28 July Barrow, Alaska

Weather - high overcast with light rain  
sunny during the morning - change  
to dense low fog - 10-15 mph rain  
wind + scattered rain + most during the  
afternoon + evening.

In the a.m. I worked on specimens -  
Then after lunch went out to Oohyak  
Slough + Elson Lagoon. Found a flat of  
40 ± Svalbi feeding on Elson bluffs - 400 yds  
north of Oohyak - two were collected.

Found 76 Black-bellied Plovers + several  
Pectoral sandpipers seen in Central Marsh.

Since the 0.46" rain which fell during the  
early morning hours - Friday - 27th - there  
is much standing water on the tundra. Most of  
the depressions are now filled + small pools  
or puddles are everywhere. The ponds on insect  
ridge + in that vicinity have raised an average  
of 3 centimeters in height. The rain which  
has been falling today - should increase  
this even more.

29 July More rain fell today at Barrow + the weather  
was consequently overcast + cool. A light  
northerly - a westerly breeze was blowing.  
Went to insect plots during the afternoon -  
took vacuum + observation samples - there  
was almost no insect activity - the





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29 July Barrow, Alaska

surface & the ground was quite wet. When I arrived back at the lab - I found that Alfred M. Bailey - Colorado Mus. Nat. Hist. had been here & was now in the village. So I went in & found Bailey & Tom Brown talking in Brown's Caf - Barrow. After talking with them for half an hour - I had dinner with the Mullens' at Brown's Caf - Brownville & then returned to camp. Bailey is to leave tomorrow. Jim Stales - Doc's (Beet) assistant brought in a *Tufta buffi* skeleton last evening in the beaver ducity - from 1 the camp.

30 July Barrow, Alaska

Worked on insect samples all morning & during the early afternoon. Went to Brown Ridge - Arctic house & saw east of B. B. - during the last half of the afternoon. Little bird activity - 1 song / Sparrow - 1 Junco / Golden Plover - 2 D. - b. Plover - 1 Parasite & 1 L. - c. Jaeger - 2 Snow Owl - & several Longspurs. Large number of mooring eiders (mostly imm) over Hyman NW over the beaver ridge & central marsh. Weather - high overcast - 0-5 mph northerly wind. No rain seen early last evening.



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31 July Barrow, Alaska

Worked in the lab during the 1<sup>st</sup> half of the morning -  
then went to Beaulieu Ridge & EISA lagoon  
during the ~~afternoon~~ last part of the morning.  
In the p.m. - Hens. I took pond samples &  
completed the pond measurements which  
had been started last week.

Weather overcast - with drizzle &  
light rain - becoming partly cloudy  
by late evening.

1 August Barrow, Alaska

Morning spent in the lab working on insect samples.  
In the afternoon - I went to Insect Area &  
Footprint Lake looking for shorebird  
activity - a few pectoral & dusky were noted.  
Juvenile western & semi-palmated scap. were  
near Britton's area - otherwise no other juveniles  
were seen.

Weather rainy during the early morning  
hours, quitting by 0900 - clearing by  
noon & clear & sunny during the  
afternoon with a 3-10 mph westerly  
wind.

2 August Barrow, Alaska

Worked on insect samples during the morning -  
then went to insect area for vacuum  
sample & observation plots. Sunny & clear  
from 0800 - 1200 - overcast with



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2 Aug Barrow, Alaska

A few scattered shower + large wind of 3 to 10 mph during the afternoon. By 2000 - the sun was partly out - no wind - warm + humid.

The tundra is quite wet now - many pools of water are standing + these seem to get larger + deeper as time goes by - as water is draining off slowly from the high ground. There was little insect activity on the high polygons or in the troughs - but increasing in the slope + lowlands.

3 Aug Barrow, Alaska

Insect samples finished during the morning + in the afternoon - I went to the ~~insect plots~~ - did ~~observations~~ plots + ~~various samples~~. ~~Weather~~ to the west side of Central mass - fertile plots - Woblesley, Floyd + Bevel Ridge. Weather overcast but warm - no wind during the morning - foggy with much rain during the afternoon and evening.

Hordes of juvenile pectoral - little else seen.



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4 Aug Barrow, Alaska

Worked in the lab all morning before going to the insect plot to take pond samples during the afternoon. Small groups of (juvenile) immature Pectorals + 2 Dunlin were noted - only other birds noted were Hods + molting + young Longspurs.

Weather overcast with occasional showers light north-wind (0-8 mph). Samples processed during the evening.

5 Aug Barrow, Alaska

Samples processed during the morning + early afternoon - then went to the Beach Ridge + Elson Lagoon at Brant Point. Small number of Immature nauri near Fuel Lake - Central marsh - wet polygon near Brant Point + slope - sl. argent lagoon. Only occasional Pectorals (all juv) - noted - no Dunlin seen.

Weather overcast with scattered rain showers throughout the day. - wind light (0-5 mph from N-NW).

6 Aug Barrow, Alaska

In the morning - I drove south - by Fuel Lake - Beach Ridge - Gasline Ridge + worked on area below <sup>gas. R.</sup> + east of the gasline. This is mostly low-cut polygon - or wet polygon habitat + numerous Dunlin + Pectorals + a few Western Sps. were found.





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6 Aug. Barrow, Alaska

In the afternoon - I took soil samples, vacuumed & took the observation records at the insect plots - drove back through the NAD Voth Area - more Dunlin & Petrel seen.

Weather overcast with low fog - visibility 2 mi - to 10 yards - varying through the day. Wind 5-10 mph from the east. Tundra very wet & soggy from recent rains.

7 Aug Barrow → Barter Is. - Lake Peters, Alaska

Morning spent in processing soil samples - weather - high overcast - light easterly breeze. Left for Barter Island at 1530 with D. Muller, D. Ashley - 3 owls seen between camp & So. Barrow 3 - 1 owl 5 mi E of So. Barrow - 3 - 1 owl 3 mi west of Admiralty - At 1623. on east shore of Admiralty - 1627 saw 1 owl - 1630 - 1 owl & 5 Glaucous Gulls on tundra - At 1645 - 1 Barn Swallow - 1725 at Woods Camp - 2 Owls on east side of Cove. Arrived Barter Is at 1900 - met Zimmerman & transferred to Fleet plane - Arrived at Peter Lake at 2010 - weather rainy - low clouds with severe thunder storms between Barter & Peters. 1 immature Semipalmated Plover coll. by D.A.M. at mouth of Chamberlain Creek

Muller & I put out traps at the SE end of Peter & at the north end - weather stopped - little seen. To bed at 0230.



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8 Aug Peters Lake, Alaska

Up at 0700 - had breakfast + walked to the south across the fens to the south end of the lake (with R. Ashby) + up into the canyon - So. of Mt. Chamberlain. The only birds seen were in the lowland - most of them were immature wheatears, + pipits - with a few Logland Longspurs, Snow Buntings + 1 sparrow (in tree?). No sign of Eagles was noted. <sup>11 Wandering Tattlers at Chamberlain Creek</sup> The jay's nest was not located. Arrived back at camp at 1600 - walked on the fen late in the evening. Weather overcast with low clouds hanging over the mountain tops - heavy rain during the afternoon + early evening.

9 Aug Peters Lake, Alaska

Muller + I were up early - checked traps at both ends of the lake - caught several Microtus oeconomus in the marshy swales between Peters + Shroder lakes + M. miniatus on the upper fens at the south end of the lake. Located 1 jay's nest (with at least 3 Paroseta - presumably one 2 adults + 1 young in the nest) on the Peters - Shroder alluvium. Then located 2nd nest on east side of Shroder - with 2 adults present but no young.



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9 Aug Peters Lake, Alaska

could be found. Pellets were collected at both nest sites. Graylms, Arctic Char, + Lake Trout were caught from the lake + adjacent streams during part of the day. Weather - calm - scattered clouds - occasional patches of sunshine. Raven seen at isthmus - 2 Juv. R. S. + 1 least Sdg.

10 Aug Peters Lake, Alaska

Mulle, I went to south end of lake (Chamberlain fan) to pull in traps - saw several juvenile wheatears, pipits + snow buntings.

*M. mus* was watched for about half an hour. These microtus are diurnal + numerous animals were encountered as we walked over the fan + especially on the terraces above the south edge of the fan. The active runway systems were noted + on two occasions, an animal was seen to sit on its haunches in front of a burrow entrance + give the loud musical squeek - which accounts for their common name - The singing vole. One pile of cut leaves was located under the edge of a boulder - when pulled out with the spade - its compact volume would be about  $\frac{1}{2}$  gal. Most of the leaves were willow - with only a few grasses. This pile was laminated in such a way so that the



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leaves on top would come before the next layer was added. The singing, - the upright posture, - the appearance (rounded ears - hunched neck), the stork-like vegetation in the water in - laminated arrangement & the habitat shows strong convergence with the Pike ( ).

During the early afternoon - packed - prepared for plane. At 1700 - R. Astley & I roved across the lake & began climbing the mountain after Dall Sheep. We were able to get within 30 yards of a large ram (with full curl) & saw a total of 19 - later 22 were seen from camp. In the mountains (2000' above the 2800' at the lake) - there were frequent Snow Buntings & 2 Horned Larks. One Rock Ptarmigan was flushed from one of the high north streams in the vicinity of the ridge top. Half a dozen caribou have been seen near the lake. Marmots (Hoary) all seen & heard in the talus slopes in the upper part of the alluvial fans. Ground Squirrels (parkes) are common along the lake & up some of the more gentle slopes. One Ermine (Mustela ermine) was





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### 10 Aug Peters Lake, Alaska

seen + collected on Chamberlaini Is.

Say's Phoebe (3), 1 Northern Shrike (juv.) +  
3 Redpolls seen at camp today. heard  
the pipit + wheatears. Another  
immature stork was seen in  
the dune area across from camp - among  
the low growing (4') willows.

### 11 Aug Peters Lake → Barrow, Alaska

Plane arrived late last night + we  
departed for Barrow at 0910 - flying  
a straight course from Peters to Siktok  
(mount Colville) → into Barrow along  
the coast. Numerous caribou + 1 moose  
(50 mi E. of Siktok) seen - 15-20 mi  
inland from coast - 1 cow) were  
noted. Only 1 not + 2 Parasitic jaegers  
were observed. Arrived Barrow at 1200.  
Rest of day spent in lab + sketching -  
Samples + notes

### 12 Aug Barrow, Alaska

I picked samples all morning + then went  
to Voth area - Voth marsh during the  
afternoon. Two flocks of Dunlin noted  
+ several individual Pectorals. Weather  
overcast but calm during the morning -  
10 mph north-wind + fog during the afternoon.  
Hines + Stevens to Peters Lake after supper.



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13 Aug Barrow, Alaska

In the morning, I went to Beaulieu Ridge - Central marsh - via meadow lakes - past Ridge & then south for about a mile. Two flocks of Dunlin were encountered, several individuals melanotos - few imm. R. phalaropus, several imm. Golden Plovers. In the afternoon - observation plots & insect samples were taken in the VOR-mud area. Specimens were processed during the evening:

Weather - light overcast - with occasional patches of sunshine. 0-5 mph east wind in the a.m. - increased to 10-15 mph in the evening. Fog settled in by 2230.

14 Aug Barrow, Alaska

Morning spent in lab working on samples & specimens. In the afternoon - soil samples were taken at the insect plots & the No. VOR & Britton's Area were checked. Most sandpeeps were along the gravel ponds - except for a few pectorals in the wet polygons. Several No. Phalaropus seen with the Red P. - near Britton's Area.

Weather overcast but calm in the a.m. - clearing partly in the afternoon - fog settled in by 1700 - lasting through the evening. 45-50°F. - all day - little wind.



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15 Aug Barrow, Alaska

In the morning - I went to Ikroavik via Voth + Footprint Lake. Returned on the east side of gasline by meadow lakes + beach ridge. Weather - thick fog -  $\frac{1}{16}$  to  $\frac{1}{2}$  mi visibility.

Footprint Lake was nearly devoid of bird life - except small flocks of longspurs + 3 immature petrels. Most birds were seen on the gravel ponds near Britton's Hut + Turk Lake (Phalaropes, maui, + few alpe - R. Turnstone + melanotos) - while several Phalaropes + several alpe were along the shore of the large inland lakes (not Ikroavik, however).

The afternoon was spent picking insect samples + preparing specimens. Notes + more specimens were worked - in the evening.

16 Aug Barrow, Alaska

Drove to Bevel Ridge + halfway to Elm Lagoon - during the morning + then went to Britton's Hut + South Salt Lagoon in the afternoon. Weather overcast - misty + windy (10-15 mph - E). Several groups of red-bills + petrels seen - otherwise little activity. Some vacuum insect samples were cleared + then Sullivan + I went to Mullens in the evening.



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17 Aug. Barrow, Alaska

Morning spent preparing + processing specimens + waiting for flight plans - but since weather was bad in the west - we were put off until Sunday. In the afternoon - I went to the insect plots - took pond, vacuum + observation samples. Weather overcast with 5-10 mph SE wind blowing.

18 Aug Barrow, Alaska

Pond samples processed during the morning + then in the afternoon, I went to Beach Ridge - E15m lagoon (Brant Pt.) - central marsh + meadow lakes, returning via AACS. Most of the pups are now along the lagoons (East, N. Side, + E15m) but a few Kenlin were seen in the wet marshy tundra. Large flocks of dowitchers were N. of the B.R. - (N. of mag. stat.) + on the curve of central marsh. Several long-t. jaegers were seen hunting - 2 frigate birds were on the beach ridge near Gasline. Weather was overcast + misty - with 5-10 mph east wind.

19 Aug Barrow, Alaska

Morning spent in lab. In the afternoon I went out past the duck camp + along the ponds toward Point Barrow. Large number of immature Sanderlings, Semis +





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19 Aug Barrow, Alaska

Western Sdps were encountered, as well as 1 R. Turnstone (imm.) + 1 semi-palmated Sdp. (imm.).

Skies cleared during the afternoon + it became bright + sunny. A light (0-5 mph) north wind was blowing.

20 Aug Barrow, Alaska

Specimens processed during the morning. Hines + Stevens returned from Inuarik R. - Hines + Sullivan departed on Ulin at 1100. In the afternoon - I went through Britton's Area - No. 1001 - insect area - took soil samples - No. 1001 Area - took 6 VOR marsh + wet ditch + to North end of Footprint - took up along the gasline - VOR creek + then back to camp. A few Melanotus were at the gravel ponds + a No. 1001 - 1 Ad + 1 imm. Spis were at the gravel pond. Little other activity was noted. Picked mud is even. Weather overcast - with cold north wind blowing (3-8 mph).

21 Aug Barrow, Alaska

Soil samples processed + notes written during the morning. In the afternoon I went south / Gasline Ridge - east below the fertilizer plot + north to Cobbleblay.



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1962

# Journal

21 Aug Barrow, Alaska

Several flocks of Adult + sev. / Immature alpina were located as well as scattered melanotos + Pluvialis. Weather: overcast - cold - 5-12 mps - N. wind. The temperatures are now dropping & nights are staying low through the early morning. Specimens were processed in the evening.

22 Aug Barrow, Alaska

Specimens were processed & some packing was started during the morning, while in the afternoon - I took pond samples, which were in turn processed during the evening.

Weather: cold - with snow flurries at various times during the day & despite this, the sun even came through several times.

23 Aug Barrow, Alaska

Pond samples picked all morning - while at the same time, I was waiting for the flight to Gull Lab - which has been on offer for over 6 weeks now. Finally - in the afternoon - I went to Britton + Voth's new look marsh - Footprint Lake (no birds!) & Ikroavik. Weather was overcast - with a light SW-W breeze - temp. around 40. Large flock of Phalaropes + juvenile alpina in the gravel areas near Britton's area -



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# Journal

23 Aug Barrow, Alaska

unhappily yesterday - very little / anything  
(3 Phalarope + 1 imm. puffin) was found.  
Sparrows - these birds are moving  
through - at a substantial rate. Evening  
spent in doing stomach analyses + note writing.

24 Aug Barrow, Alaska

Morning spent in lab work + specimens +  
starting to pack materials to be sent south.  
In the afternoon, Stevens, Del Shirley (USC-)  
+ I went out toward POINT BARROW -  
where a number of Sanderlings, imm (+ 1 Ad)  
Auklets, Red Phalarope + Glaucous Gulls  
were noted. After getting - nothing  
stock - the wind - it took us two  
hours to get out + finally made it  
back to camp by 1730. Weather  
overcast - wet stormy 5-15 mph  
easterly wind.

25 Aug Barrow, Alaska

In the morning - I went to Central  
Marsh, Wohlsehlo, Slough EIS -  
Lagoon - ~~Star~~ Ookpik Slough - went  
to the gasline + the road to Meadow  
Lake + back into camp. And a few upland  
+ melanotos were noted. No  
jays - 4 crows + no lemmings. In the  
afternoon - I went to Britton's + North's area to



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## Journal

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25 Aug Barrow, Alaska

Try to find shorebirds. Few were located - except at the gravel ponds. Weather overcast during the morning with a light SW wind; clearing in the afternoon - sunny - with little or no wind. In the evening - went to the village - returned at 2200.

26 Aug Barrow, Alaska - Gull Lake, Alaska

Went to insect plots at 0800 - took soil samples; returned to lab & worked - there all morning. Weather overcast, light sprinkles from 10-15 mph westerly wind.

Left at 1430 for Gull Lake with Gil Chalkot & Bob Murphy (plotting) - 1 Owl seen near Wainwright - no other seen nor were any jaegers seen. Arrived Gull Lake about 1735 - landed at 1800. The lake has gone down in size & depth - 30-40' of mud & gravel is now around the edge of the lake & the island. Also the island has been extended - by gravel bar - 150' to the northwest. On arriving there were about 80-90 Gulls seen - on the island & about 25 of these seem to be young of the year, 6-10 older immatures (2-3 yr?) & the remainder were





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## Journal

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26 Aug. Barrow, Alaska - Gull Lake, Alaska

adults. One dead - full, grown chick was found along the shore of the island.

In counting the nest sites - New Agassiz to be about 23 active nests (New Agassiz count -  $\pm 10$ ). 14 pellets were picked up in 1 hour + we departed after getting stuck in several sand bars at 1930. - arriving back at Barrow at 2130.

The lake is drying up so much that landing - next year - may be difficult. This may have been our last trip!!

27 Aug Barrow, Alaska

Finished processing soil sampler by 0900 + then went to Voth Area + took pond samples. Weather overcast with 5-12 mph - N.W. wind.

In the afternoon - after processing several ~~soil~~ samples - went to central marsh - Gasline Ridge + points to the south. Rain began during the afternoon + continued through the evening. Very few birds seen - Snow scattered 1 + 2 alpine Sw + 1 Ad. alpestris. Only 3 melanotos seen.

28 Aug Barrow, Alaska - Fairbanks

Packed all morning + left via Wien at 1145. Arriving 4Bk. at 1400 after stopping in Umiat. Weather at Barrow was overcast, cool + 10-15 mph - N. wind.



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## Feeding Observations

7 July Barrow, Alaska

Records were made today on the method of feeding by the various species + how this will vary with habitat, weather + season.

The accompanying data sheet shows the items recorded. The only explanation needed concerns the feeding action. If the bird pecked at the surface or at the vegetation - it was recorded - peck - these are single motions - not repeated rapidly. If the bird jabbed so that the bill went into the lute layer or below (0 - 10 mm) - then it was called a jab. This motion may be repeated rapidly 4-5 times - each sequence of jabbing was recorded as one mark. If the bird probed - deeper than 10 mm - then - this was recorded as a probe - again rapidly repeated sequences were recorded singly.

- See discussion of alga + melanotos for this date.

1 Aug

Black mud near <sup>at</sup> corner with water now - no bird feeding in this habitat. Rain has increased water level so that this bl-mud habitat is no longer available. Most feeding seems to be on the mud around low-center polygon + on the



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## Feeding Observations

2 Aug Barrow, Alaska

wet (or damp) troughs + the lower part of the slopes

2 Aug These feeding sites are correlated - perhaps indirectly with the observation that most today - where most surface activity was on the slope + lowlands - little or none on the polygons.

Even though this is the case - most of the stomach contents during the last week have contained larval *Typhlocyba* - no adults. The one immature which I have been able to watch - was feeding entirely by ~~stomach~~ pecking - apparently taking all surface forms.

6 Aug Feeding is still on the wet polygons - but now groups are starting to move coastwise to the gravel areas - i.e. near Britton's area. Large flocks of Herring were encountered today - on the wet p. dunes.



# Iktroavik Census Plot

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28 May Barrow, Alaska

Plot checked - entirely covered by snow - no birds

6 June Plot still covered but tops of polygons + the ridge are along the southern sector starting to emerge (some grass blackens). A pen + larval 40' x 600' along the ridge so of 25.0 - 25.4 - is open patches - 2 Rinks - \* White-rump seen - 12 areas

9 June Most of the polygon tops are open now + the ridge on the southern half is relatively clear of snow. Several Redpolls heard displaying + 2 species seen. Several Longspurs were present - + a flock of Pectorals.

14 June

21 June

21 June Entirely covered by snow

24 June

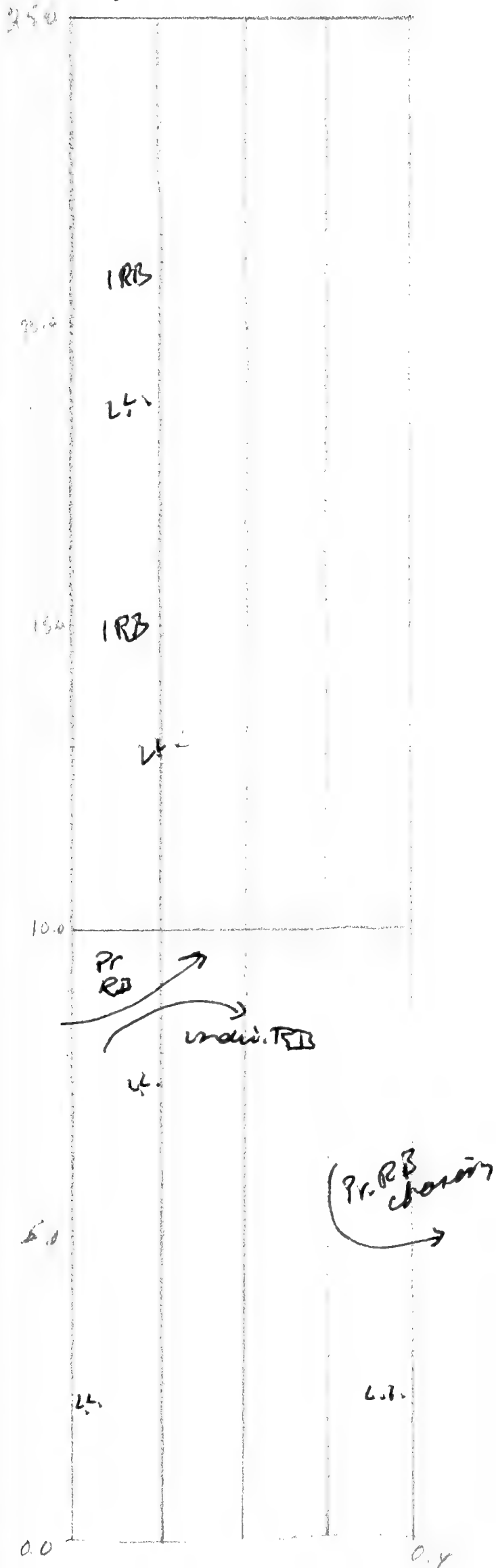




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Iktroavik

9 June Iktroavik, Alaska  
Flock of 15 Pectorals ↑

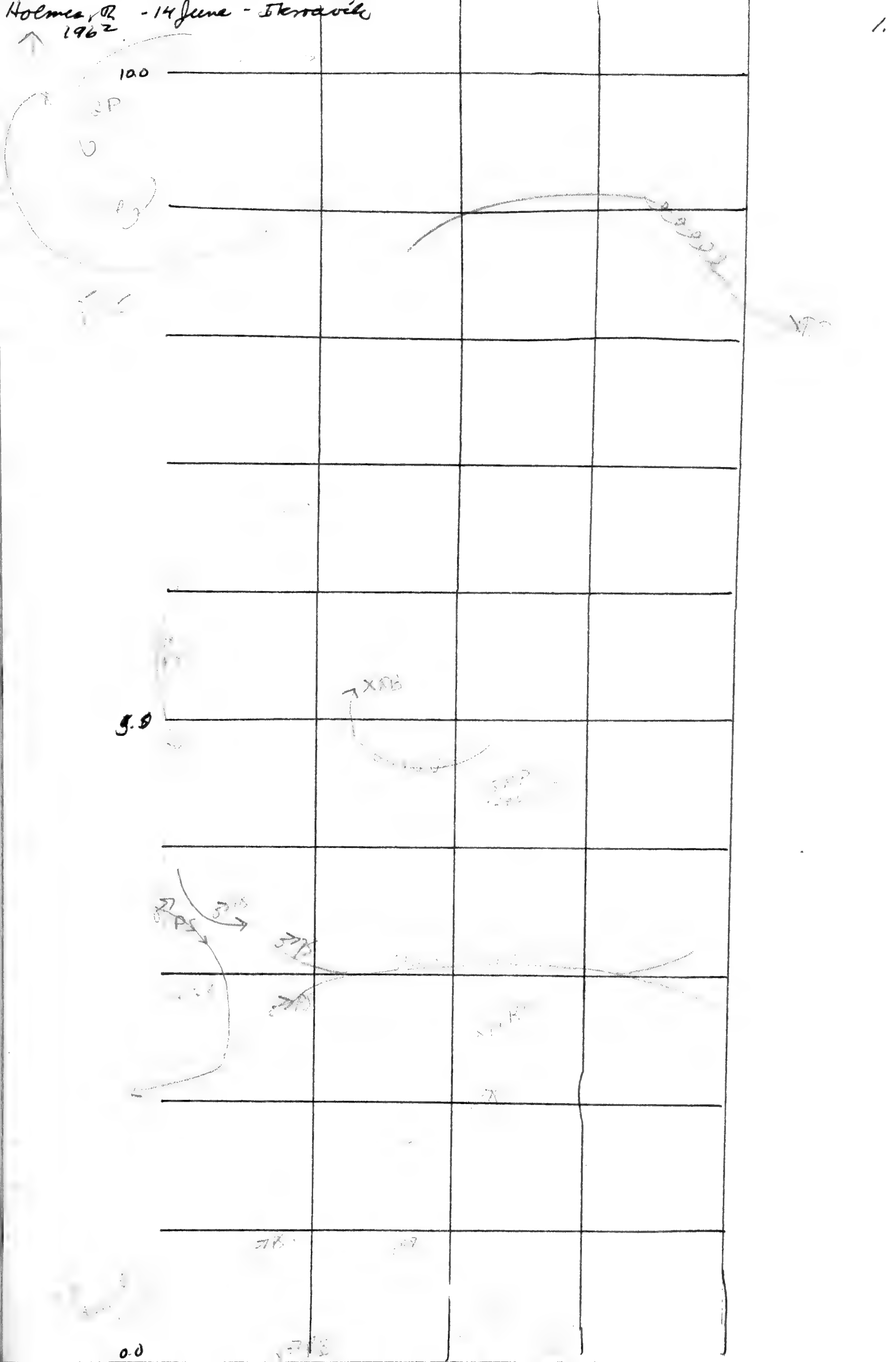




Holmes, R. - 14 June - Knoxville

↑ 1962

1.





Holmes R  
14 June 1962

2.

20.0

X X X  
XSS

Skrairle

18.0

X X X

17.0

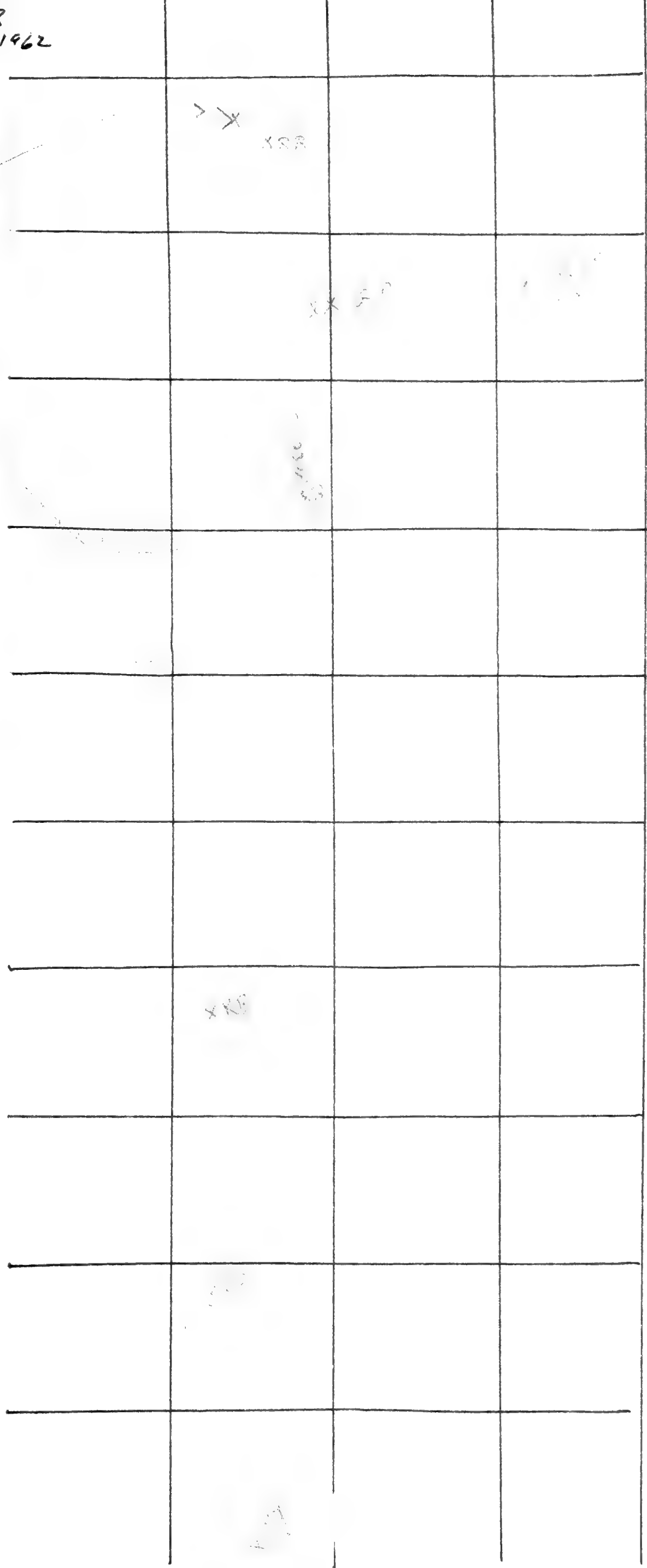
X X X

15.0

X X X

12.0

10.0

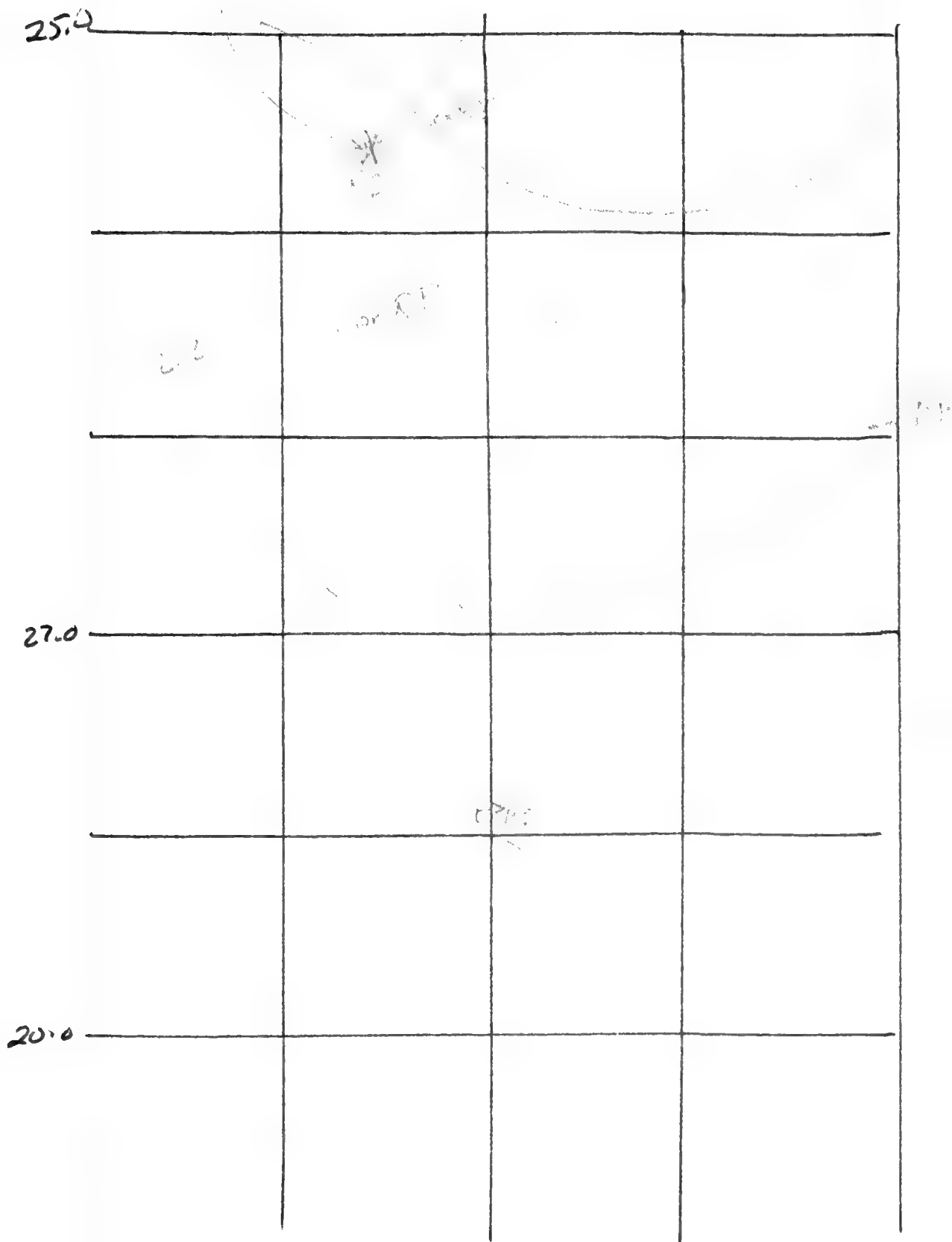




18 June Shroovits

Holmes R

1962







Holmes, R  
1962

100

20 June  
Interwash



⊗

5.0

⊗

⊗

⊗

⊗

~~8B~~  
8B



Holmes, R. 10<sup>th</sup>  
1962

1.

21 June  
Ikroavik

PK-DS.

---

50

⊗ RP

⊗ RB  
4 egg

⊗ RP

⊗ K

2/2

⊗ RP  
1 egg

⊗ RP  
3 eggs

x 67

0.0



Holmes, R. 200  
1962

2

21 June  
Shrank

20  
200

T

12

150

X



Holmes, R.  
1962

3

21 June  
Ikravik

⊗ LL  
6.995

pr 0.58.

← ↑ → //

not censused  
thoroughly due  
to cold weather





Holmes, R.  
1962 10.0

24 June  
Itinerary

8.0



5.0

⊗ RB  
4 eggs

⊗ RB

⊗

2.0

⊗  
1 egg

⊗

1.0



Holmes, R.  
1962  
24 June 2000  
Shroavik

2.

23

23

23

15

\*RB

ⓀPS  
30/15



Holmes, R  
1962

3

24 June Ikravik

25.0

+

RB  
① 4 eggs

233, 153

200



Holmes, R.

27 June 1962

Akroavik

100

x<sup>♂</sup>PS

⊗GP  
4 eggs

⊗RP  
4 eggs

⊗RP  
4 eggs

⊗RB  
4 eggs

50

⊗RB  
4 eggs

xRB

⊗LL  
5 eggs

xGP

xprRP

⊗RP  
1 egg

xRP  
4 eggs

5<sup>♂</sup>PS

0.0

xRL





Holmes, P.  
1962 20.0

21

27 June  
Shroavile

27  
2

15.0

GP fine  
4 eggs

GP  
4 egg

GP  
4 eggs  
fine

17.5

30.05

10.0

XGP

2

8. 1/2

Holmes, R  
1962

27 June  
Lk roavik

2510

♂  
44-21

② PS  
4045

QLL  
6995

20.0



Holmes, R.  
1962

16.0

RB  
RB  
sewnatch

7.

2 July - Howard

0900-1400



5.0

xRB  
4 eggs

LL  
6 young

xRP  
1 egg

xRP  
4 eggs

x2RB

GP  
4 eggs  
2, 2

RP  
4 eggs  
2

RB  
4 eggs

xRP  
4 eggs  
2



Holmes R. 200  
1962

2 July - Ithaca

⊗ RP  
2 eggs

RB  
17

⊗ BL gone

40+  
8PS

75  
6000

⊗ GP  
gone  
no sign  
adults

⊗ PS  
4 eggs - 9

7587 chow  
18.05





Admes, R.  
1962

3

2 July  
Ikroavik

RB?

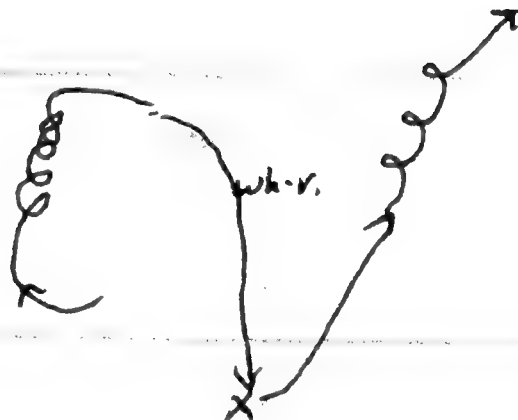
⊗ RP  
4925

⊗ PS  
gone

x  
when

45ps

⊗ 44  
all young  
J+?





Holmes, R

1962 200

⊗ PS  
3 eggs  
♀

5 July -  
Akroavik

⊗ RP  
4 eggs

⊗ RB  
4 eggs  
♂

⊗ LL  
empty

⊗ RP  
1 egg

XPS

⊗ GR

n?

X PS  
4 eggs  
♀

⊗ GP  
4 eggs



Holmes, R.  
1962

5 July - Skovavik

250

LTT ←

⊗ RB  
4 eggs  
♀

⊗ R9  
4 eggs

X

740  
1973

⊗ All  
5 young



Holmes, R.  
1962

9 July  
Skunk

X

⊗

⊗

⊗  
4005

X

50

⊗  
4005

X

⊗

⊗  
4005





Holmes, R.  
1962

9 July  
Hawaii

⊗ PS  
4 eggs  
♂

⊗ RP  
4 eggs  
♂

⊗ RB  
4 eggs

⊗ LL

15.0

⊗ PS

dark  
Pare I

⊗ RP  
4 eggs

⊗ XX ♂ ♀ RB  
4 young

⊗ PS  
4 eggs  
♀



Holmes, R.  
1962

4.

9 July 25  
Shoreville

⑧ 1B  
4 2445  
57

X 12  
5/17

88

Turn F

102

200



100

Holmes, R  
1962

12 July  
Howard

0800 - 1100

5.0

7/25/62

0.6



Holmes, R  
1962

12 July  
Shroud

X 115

X 115

X 115

15m

X 115  
4000





Holmes, R.  
1922

3

12 July Ikwavil

25.0

1/2 net - 1000  
1/2 net - 1000  
1/2 net - 1000  
1/2 net - 1000  
1/2 net - 1000

1000  
400

1000

1000

1000



Holmes, R. 00  
1962

16 July  
Shroavik  
890-1030



20.0

Holmes R.  
1962

16 July  
Akroavik

888

1

113

10.2

X 11  
3.1

20.0

X-12  
+101

20.0

INSECT SAMPLING  
1962





Holmes, R.  
1962

## Insect Sampling

31 May Barrow, Alaska

Two samples taken from Britton's Area where a number of polygons are exposed & ponds are starting to open up. 1 to  $m^2$  sample taken from a pond edge in the high center polygon area. - contained 5 Pedicia. Another sample taken 5' away on a higher polygon - no discernable insects. A pair of RDBs was inhabiting the area. Both these plots were grass & for covered.

2 June - 2 samples taken from grass-sedge slope - One north side of Woblesby Slough - where 2 Diver were shot. 1 contained 5 Pedicia. None seen in the other sample - taken 5' away.

5 June Permafrost level in open slope is about 1 inch or less.

9 June Insect plots have been covered by snow but today most of the polygon-tops have become exposed; the ponds, however, are still deep - snow - only the tops of stalks are showing. Snow is becoming quite soft, though & there should be less soon.

8 June 3 soil sod samples taken from bluffs - several Pedicia & 1 Tipula - see sample sheets.

9-13 June - Most of these days were bright & sunny - & the snow literally disappeared. Many ponds beginning to open. - 1 sample taken today



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## Insect Sample - #1

June 13 Barrow, Alaska

at the insect plots - only ponds A, F, J were open. The remainder are still snow covered in.  
Sample #1

Pond A - connected to A' -  $25 \times 50'$  - water level at 4.0 (3" below color) - ice covers 50%

1 pond mostly below surface. Water temp =  $5^{\circ}\text{C}$  - permafrost level =  $1\frac{1}{2}'$ . Sample on F side

P-B - top of stake just showing - other were all in pond - open water

P-C - Pond edge frozen - some open water in center - underlain by snow or ice

P-D - frozen - in edge with some water but bottom frozen & icy

P-E - top of stake just showing

P-F - 50% covered by snow & ice. pf =  $1'$  - temp =  $10.0^{\circ}$

P-J - 5% water - 95% snow & ice - temp =  $5^{\circ}\text{C}$   
pf =  $\frac{1}{2}"$



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Sample #2

16 June Barrow, Alaska

Pond-A. - No ice or snow - ponds are now separated  
in half (A & A'). Pond-A is ~30' in diameter.  
12.8°C, p.f.r. = 3". Level - ?

Pond-B - 90% of bottom covered by ice - water on top -  
p.f.r. = 1½" - Temp = 4.0°C

Pond-C - 50% covered by ice - with water on top  
temp = 7.20°C p.f.r. = 2" - level at 6.0

Pond-D - 50% covered by ice - under water  
temp = 9.8°C; level at 7.0 p.f.r. = 2.5"

Pond-E - 70% ice + snow - mostly under water - but  
30% of bottom at surface. Temp = 6°C; level at 8.0  
p.f.r. = 1.0"

Pond-F - No ice. level at 4.0 - 12.8°C, 3" p.f.r.  
#1 is now 2' from water's edge

Pond-J - 5% with ice - mostly under water -  
p.f.r. = 3.0" ; level at 4.8; temp 12.7°C

Pond-G - 10.2°C - p.f.r. = 2" - 50' diam. - 50% ice - under water

Pond-H - 7.8°C - p.f.r. = 2" - 30% ice - under water

Pond-I - 10.6°C p.f.r. = 2" - no ice



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## Sample #3

21 June Barrow, Alaska

1800-1900. Weather overcast, 10 mph E wind.

P-A -  $7^{\circ}\text{C}$  - ph at 4" - level at 4.0. level of  
sample = to #7

P-B -  $6.5^{\circ}\text{C}$  - ph at 2" - level at 5.5 - 20' dia.

P-C -  $6^{\circ}\text{C}$  - ph at 2.5" - level at 5.7

P-D -  $7^{\circ}\text{C}$  - ph at 2.5" - dia = 30' - separate  
from D'

P-E -  $6^{\circ}\text{C}$  - ph at 3" - level at 7.5 - sample  
2 feet below #2.

P-F -  $5.8^{\circ}$  - ph at 3.0" - level at 8.0 -  
40' in diameter

P-G -  $6^{\circ}\text{C}$  - ph at 3" - level = 5.0  
diameter = 40 x 60'

P-H - 40 x 40' -  $6.0^{\circ}\text{C}$  - ph at 0' - some  
emerging vegetation

P-I -  $6.4^{\circ}\text{C}$  - ph at 3" - 60 x 30' diameter

P-J -  $6.1^{\circ}\text{C}$  - ph at 4"

~~The~~ ice was <sup>not</sup> present in any of the ponds - ~~some~~  
snow was completely gone from the tundra  
in this area.





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Sample #4

25 June Barrow, Alaska

Samples taken by Henier - 1430-1530 - day clear  
with 8-10 mph NE wind.

P-A - 13.0°C.

P-B 13.8°C - level at 5.1

P-C 13.6°C level at 5.5

P-D 13.1°C level at 5.8

P-E 13.8°C level at 7.3

P-F 13.8°C level at 3.5

P-J 11.4°C - level at 4.5

P-G - 13.8°C

P-H - 12.8°C

P-I - 12.0°C

~~Sample #5~~



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# Pinel Sample #5

29 June Barrow, Alaska

P-A - 15.60°C -  $\rho h = 8"$   
P-B 14.40°C  $\rho h = 5"$  level at 4.7  
P-C 14.40°C -  $\rho h = 5"$  level at 5.2  
P-D 16.00°C -  $\rho h = 5"$  - level 5.5  
P-E 13.60°C  $\rho h = 5.5"$  level at 7.0  
P-F 13.60°C  $\rho h = 6"$  level at 4.3  
P-J 14.80°C  $\rho h = 5"$  level at 4.4

P-G - 14.80°C -  $\rho h$  at 5"  
P-H - 13.80°C -  $\rho h$  at 5" sample H in I  
P-I - 15.20°C -  $\rho h$  at 6" bag + uncover

## Sample K C

3 July

- Take by J. Q. Hines - 1330 - 1500.  
P-A - 13.0°C  $\rho h = 8"$  - water 10" below color on stake  
P-B 11.20°C  $\rho h = 5\frac{1}{2}"$  - level at 4.8  
P-C 11.80°C  $\rho h = 5\frac{1}{2}"$  - level at 5.2  
P-D 11.20°C  $\rho h = 5"$  - level at 5.5  
P-E 12.10°C  $\rho h = 5\frac{1}{2}"$  - level at 6.9  
P-F 12.80°C  $\rho h = 5"$  - level at 3.1 - 3.2  
P-J 11.00°C  $\rho h = 5"$  - level at 4.3  
P-G 12.60°C  $\rho h = 5"$   
P-H 12.80°C  $\rho h = 6"$   
P-I 12.80°C  $\rho h = 6"$



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## Pond Sample # 7

7 July Barrow, Alaska

Day warm + "mosquity" - light rain westerly  
wind during the afternoon. Sample taken  
by J. Q. Hines

P-A	- 16.4°C	level at 10"	phr at 12"
P-B	- 17.8°C	level at 4.5	phr at 9"
P-C	- 17.8°C	level at 5.0	phr at 5"
P-D	16.5°C	level at 5.4	phr at 6"
P-E	17.0°C	level at 6.7	phr at 12"
P-F	20.0°C	level at 3.0	phr at 5"
P-I	16.5°C	level at 4.0	phr at 4"
P-G	16.6°C	—	phr at 6"
P-H	17.8°C	—	phr. at 6"
P-I	- 18.6	—	phr at 4"

## Sample # 8

11 July Day overcast - cool E wind (3-8 mph). Sample  
taken by J. Q. Hines.

		level	phr
P-A	13.2°C	12"	12"
B	13.2	4.3	10"
C	13.2	4.8	10"
D	13.4	5.0	11"
E	13.2	6.3	14"
F	13.0	2.8	5"
I	13.1	3.9	10"
G	12.8	—	6"
H	12.0	—	8"
T	12.0	—	7"
K		4.0	



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## Pond Samples #9

15 July Barrow, Alaska

Weather overcast. Light easterly wind.

P-A - dry at stake - ground level = 2.0  
pfr at 15" . Temp = 13.20°C . Pond is 10'  
in diameter with black mud showing  
at edges + at spots in the center. Only  
inches deep - at the deepest.

P-B. level at 4.0 - pfr at 12" T = 13.0°C  
15' in diameter. mud edge with only  
sparse Rhypnum near the edges

P-C Temperature = 11.9°C. pfr = 14" . level  
at 4.8. Pond 15 x 40' - appears deep,  
no vegetation in the center - black  
mud. edge becoming mossy mud.

P-D - Temp = 10.8°C - pfr at 14" . level at 5.0  
20 x 40' - grass edge - deep - no vegetation  
beyond edge.

P-E . Temp = 13°C, pfr at 24", level at 6.0.  
10' x 10'. 1 or 2 inches deep at maximum,  
much moss showing at the surface.  
Mud + moss edge

P-F - Temp = 11.8°C, pfr at 8", level at 3.8  
30 x 36' - much Antyphila showing from  
the pond

P-J. Temp = 12.8°C, level at 3.8, pfr - 12"  
60 x 30' - much Antyphila scattered  
through the pond.





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## Pond Sample # 5

15 July Barrow, Alaska

P-G . Temp =  $11.2^{\circ}\text{C}$  pdr at 8". 40x20'  
grass + litter edge - muddy masses of  
debris. little insect life. Arctophila  
sticking through.

P-H Temp =  $10.8^{\circ}\text{C}$  pdr = 10". 40x40' -  
no vegetation in the center - black  
mud bottom. edge is smattered  
dead grass with scattered  
growing Dupontia!?

P-I Temp =  $11.2^{\circ}\text{C}$  pdr at 12" - center to  
1/2 grass - edge - grass - rock  
mud-litter bottom.

P-K -  $12.2^{\circ}\text{C}$  - pdr at 14" + . 60' long +  
20 → 10' wide - edge just below  
mud - bordered by tall Dupontia -  
no vegetation in center

P-M -  $11.8^{\circ}\text{C}$  - pdr at 12" - 1/2 mud: 1/2 water

## POND SAMPLE #10

19 July Weather has been warm + clear during the  
last three days - but a decreasing number  
of adult insects have been noted. To day  
Mya as overcast + cool but the sun was  
out by 11:00 + the wind stopped soon  
thereafter. Sample taken during  
the last half of the afternoon. Very  
warm + warm - 0 → Sample E - no breeze



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1962

Pond Sample #10

19 July Barrow, Alaska

P-A. Temp =  $18.8^{\circ}\text{C}$ . level at ground (2.0) - pbr at 18" +. Pond 10x20' - most moss shown on the entire surface / pond - water 1-3" over 40% / pond area.

P-B. Temp =  $20.2^{\circ}\text{C}$  - level at 3.8. pbr at 18" + still same size (~15x15') - no mud - moss shown in pond but agglum at the edge.

P-C. Temp =  $17.9^{\circ}\text{C}$ . pbr - 18" +. level at 4.8 (level / pond bottom = 3.5). No moss shown - mud near edges

P-D. Temp =  $17.8^{\circ}\text{C}$ . level at 5.0 - pbr 18" +. dry - no moss shown through.

P-E. level at 6.0. Temp =  $18.8^{\circ}\text{C}$ . pbr - 14" + 1" dry at most - moss shown through 75% / pond surface.

P-F. T =  $20.2^{\circ}\text{C}$ . level at 2.7. pbr = 15" +.

P-J T =  $17.8^{\circ}\text{C}$  level at 3.7. " "

P-G T =  $15.2^{\circ}\text{C}$  pbr - 12".

P-H T =  $19.8^{\circ}\text{C}$  " " +

P-I, T =  $18.8^{\circ}$  " 15" +.

P-K - T =  $21.8^{\circ}$  level at 3.5. 3' / moss shown at east end - also some on west side.

P-M -  $20.7^{\circ}\text{C}$  - level dry -  $\frac{1}{2}$  mud +  $\frac{1}{3}$  water. (water 6x10').



Holmes, R.  
1962

## Pond Sample #11

23 July Barrow, Alaska

Weather clear; 10-15 mph east wind. - cold.

P-A - temp =  $14^{\circ}\text{C}$  - level - dry

P-B " -  $15.8^{\circ}\text{C}$  " = 3.8

P-C " -  $13.8^{\circ}\text{C}$  " = 5.6

P-D " -  $14.7^{\circ}\text{C}$  " = 5.8

P-E " -  $17.0^{\circ}\text{C}$  " = 6.8

P-F " -  $13.5^{\circ}\text{C}$  " = 2.5

P-J " -  $13.7^{\circ}\text{C}$  " = 3.7

P-G " -  $15.6^{\circ}\text{C}$

P-H " -  $13.8^{\circ}\text{C}$

P-I " -  $14.4^{\circ}\text{C}$

P-K " -  $16.0^{\circ}\text{C}$  level 3.0

P-M " -  $15.1^{\circ}\text{C}$  level - dry

-Ponds still quite dry - & becoming smaller all the time. The slight rain on 20<sup>th</sup> - seemed to produce little effect.



Holmes, R.  
1962

27 July Barrow, Alaska



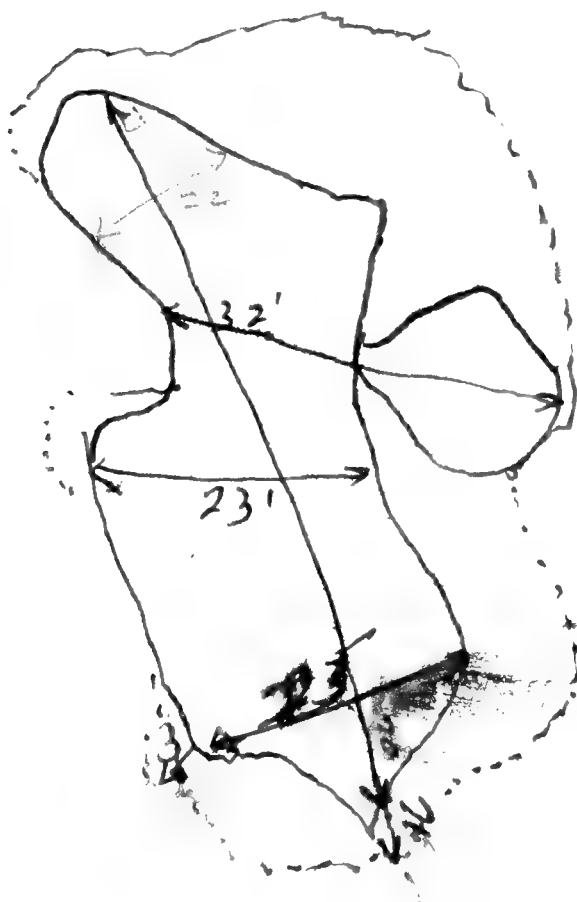


Holmes, R.  
1962

27 July Barrow, Alaska

10°C

P-C - pfr. = 17.5" - Temp 9.4°C level = 5.30  
Kaltf's thermograph

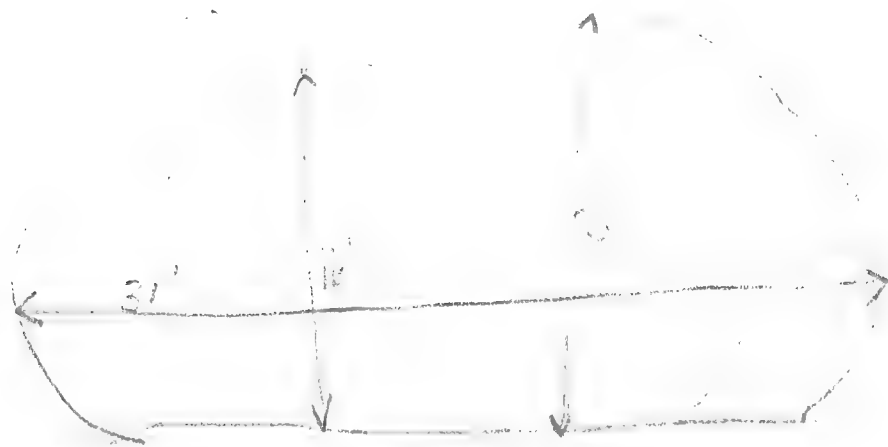




Holmes, B  
1962

27 July Barnes, Alaska

F-D





Holmes, R.  
1962

27 July Barrow, Alaska

17

7

17

17

17

17

17

10"

9.3

4.3

9

3.8



Holmes, R.  
1962

Pond Sample #13

21 July Barrow, Alaska

1330 - 1600. Sample taken by Hume + I +  
posts in boreal area were measured.  
Weather warm + light rain.

	<u>Temp</u>	<u>Level</u>
P-A	6.2°C	2.7
B	5.2	4.5
C	5.0	5.5
D	5.6	5.5
E	6.4	6.9
F	4.8	3.9
J	5.1	3.9
G	5.4	3.9
H	<del>4.6</del>	5.5
I	<del>5.7</del>	5.0
K	5.8	3.3 (knocked down - put upright)
M	5.8	3.0 (post toppled)





Holmes, P.  
1962

P-F

31 July Barrow, Alaska

P-F



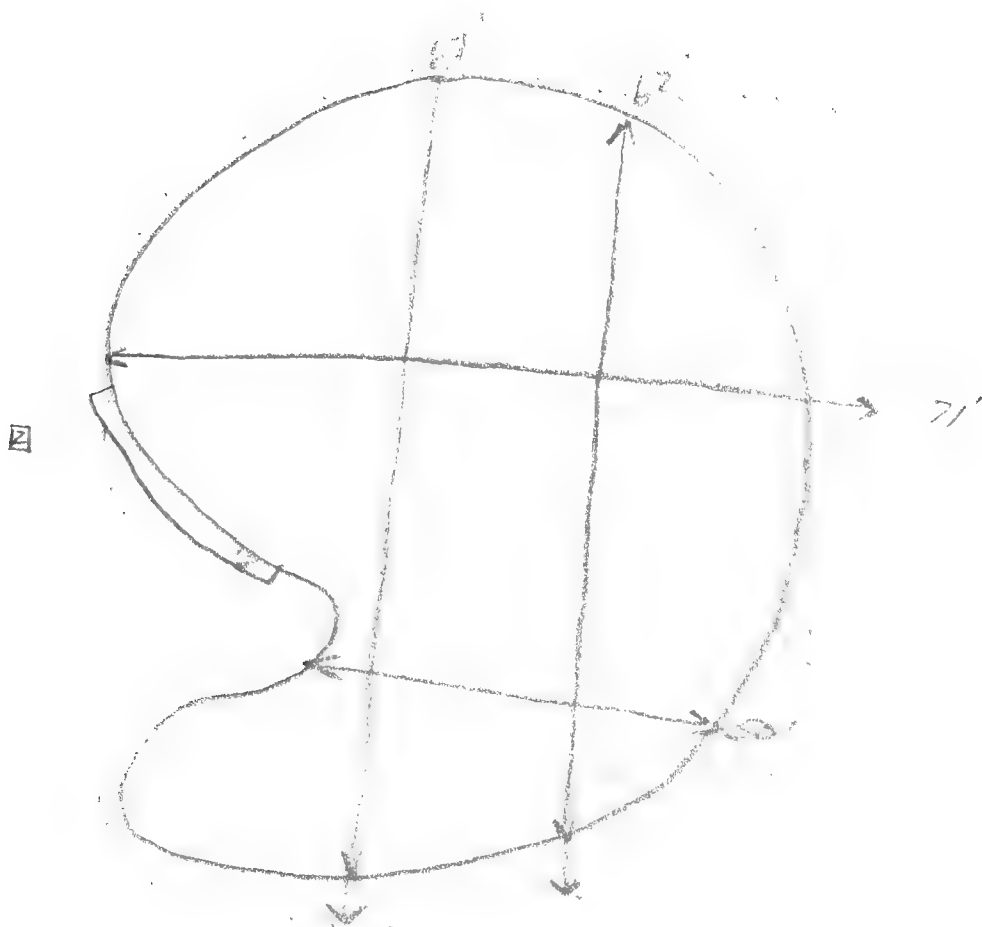


Holmes, R.  
1962

P-G

31 July Barrow, Alaska

P-G - Archiprute - dotted line for 2 days





Holmes, R.  
1962

P-H

31 July Barrow, Alaska

P-H - No immersion near vegetation and  
tall Dupontia at edges extend  
2-3 feet into the water.





Holmes, R.  
1962

P-I

31 July Barrow Alaska

P-I - 11.5. 11.5. 11.5.

11.5. 11.5. 11.5.

11.5. 11.5. 11.5.

11.5. 11.5. 11.5.

11.5. 11.5. 11.5.



11.5. 11.5. 11.5.





Holmes, R  
1962

P-J

31 July Barrow, Alaska



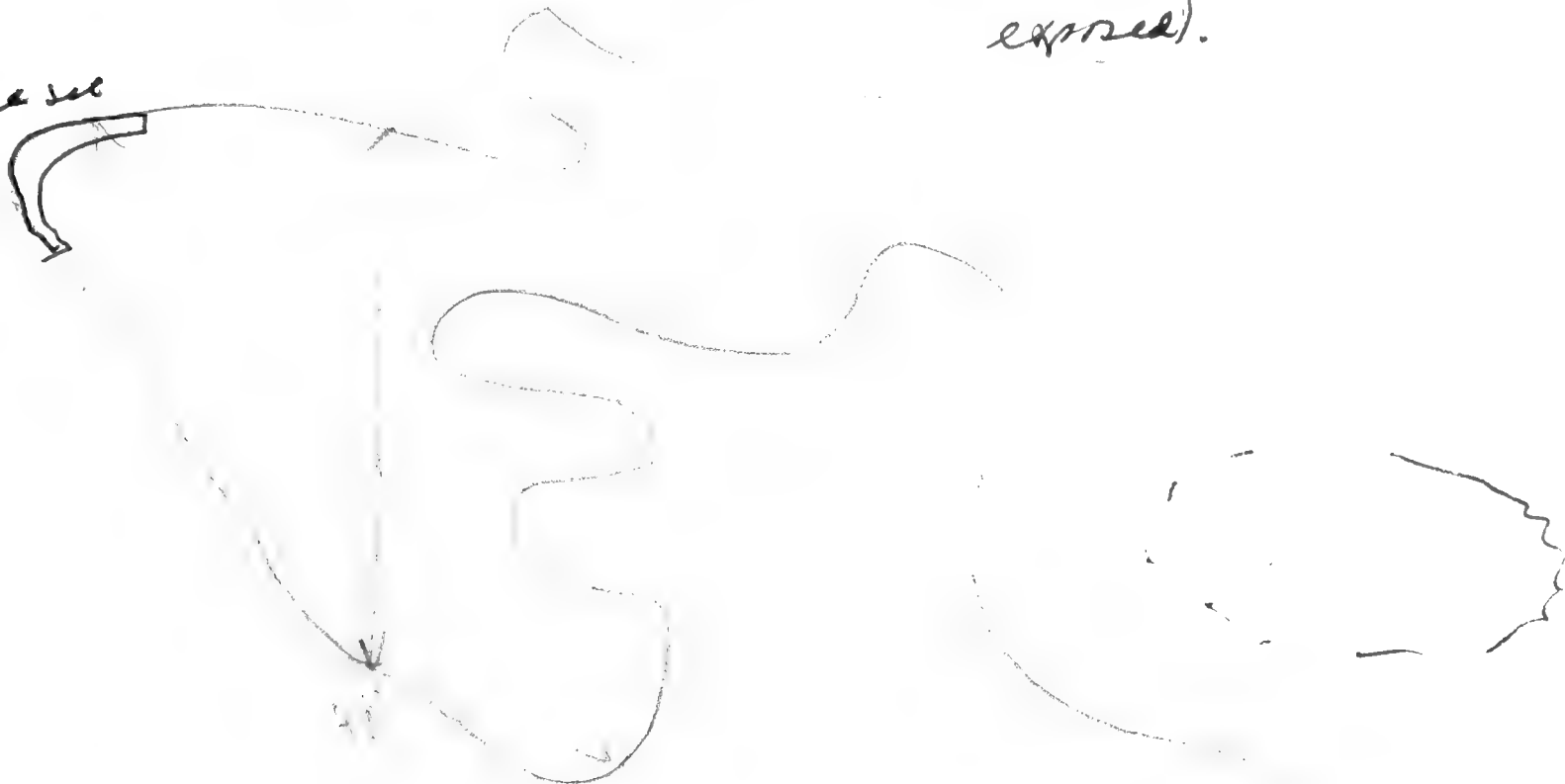
Holmes, P.  
1962

P-k.

31 July Barrow, Alaska

man sector free of emergent  
vegetation. Sample taken at east end -  
where today was covered by water (i.e. normal  
exposed).

sample site





Holmes, R.  
1962

P. M

31 July Barrow, Alaska

Some scattered emergent  
vegetation but sparse. Pond <sup>was</sup> over  
half exposed during mid July, not only  
winter edge has now made visible



sample



Holmes, P.  
1962

## Pond Sample #14

24 Aug Barrow, Alaska

Weather overcast with occasional light sprinkles - light N orth wind. Heavy rains during the last 4 days.

	TEMP (°C)	level
P-A	11.0	3.0
B	10.0	5.1
C	9.8	6.0
D	9.6	5.8
E	9.8	7.3
F	11.4	4.9 - sample taken 8' above #13 (halt was to #1)
J	9.8	4.3
G	10.8	4.5
H	11.3	5.6
I	11.0	5.7 (moved to 5.0)
K	12.0	3.5
M	11.8	4.0

sample taken - mud edge - soil  
rest is under water

9 Aug Barrow, Alaska

## SAMPLE #15

Weather: windy, overcast, intermittent rain - warm (~50°)

Sample taken by J. Q. Hume

P-A	3 1/2	-	13.8°	G	4.8	13.8
B	5 1/2	-	11.8	H	6.3	14.2
C	6.0	-	13.8	I	5.1	14.4
D	5.8	-	12.9	K	9.8	14.0
E	7.2	-	13.8	M	4.5	14.2
F	5.0	-	14.2	Sample taken under water		
J	4.5	-	12.2			





Holmes, R.  
1962

Pond Sample #16

13 Aug Barrow, Alaska

Sample taken 1430-1500. Weather: broke  
overcast - 5-8 mph east wind.

A	12.6°C	3.5
B	13.2	5.5
C	15.6	6.0
D	13.6	5.9
E	14.0	7.0
F	14.4	5.0
J	11.2	4.7
G	14.8	4.9
H	13.8	6.3
I	14.2	5.1

Ponds k+m not sampled - since all much  
covered with more than 2" / water.

# 17

17 Aug Barrow, Alaska

Sample taken 1430-1500. Weather - overcast, light SE wind

A	9.0	3.6		
B	9.6°	5.5	G	9.0° 4.9
C	11.0°	6.0°	H	10.8° 6.3
D	10.4	5.9	I	9.6° 5.2
E	9.8	7.0		
F	9.2	5.0		
J	10.6	4.8		



Holmes, R.  
1962

# Pond Sample #18

22 Aug BARROW, ALASKA

Weather: overcast, + snowflurries. Samples taken  
1430 - 1530. Permafrost measurement taken  
with probe

	PF	level	Temp
P-A	21"	3.6	9.0°C
B	15	5.5	9.2
C	20.5	6.0	7.0
D	20	5.8	7.0
E	20.5	7.0	9.6
F	14	4.8	8.8
J	21	4.8	8.6
G	15	4.9	8.0
H	16	6.4	7.8
I	15	5.0	8.2

27 Aug

Barrow, Alaska

- Pond Sample #19

Weather overcast - 10 mph NW wind. Temp = 40°F

P-A-	3.8	5.8°C	- back level #1 - change of 5'
P-B	5.5	6.0°C	- " " " " - change of 4'
P-C	6.0	5.8°C	- " " " " - change of 1 1/2'
P-D	5.8	5.2°C	- level even throughout - (possible change of 1-4")
P-E	7.0	7.4°C	- back to level #1 - 10'

Change during season

P-F	5.0 (changed to 4.9)	5.6°C	- level 2' below #1 - change of 8'
-----	-------------------------	-------	---------------------------------------

P-I	4.8	5.6°C	- level back to #1 - change of 2'
-----	-----	-------	-----------------------------------



Holmes, R.  
1962

# Pond Sample #19 - con't.

27 Aug Barrow, Alaska

P-G	5.0	-	5.8°C	- level 1' below #1 - change of 17'
P-H	6.5	-	5.8°C	- " back to #1 - change 11'
P-I	54		5.8°C	- " " " " - " " 3'

Ponds F → J - mostly sphagnum (GI + J) on  
course - blocked more (F, J, H)



1962

## Notes on Insects from samples

5 Aug - Pedicia larvae seen to be deeper in the soil -  
in the Phil mass / roots - 1 to 5 cm  
below the surface - whereas - most  
Prionomera are right at or under a  
surface - in upper 1 cm. There is  
also a tip of tip of tip - They seem to be  
right at the surface

Sample #14 taken yesterday - at P-K & on -  
produced almost nothing - probably due  
to sample in unfavorable site - where  
samples are not productive (i.e. - the  
sample was not decay mass - not  
much - in K - it was as with m





Holmes, R.  
1962

Observation Plots - #1

Weather clear - with 8-10 mph  
NE wind

24 June Barrow, Alaska

O-P-A - #1 - 1430 - 1500

1 long-winged - small dark fly (brown wings) ~~Sawfly~~

Slv. small milk & collembola

O-P-A' - 40' - N of A - sedge & moss in polygonal

1500 - 1510

1 midy - Ad? - coll.

1 bumblebee

O-P-B - 1500 - 1520. - water lily at foot - moss patches  
2 spiders

1 small brown winged fly - as in A - ~~Sawfly~~

O-P-B' - 20' - SE of B - same trough - 1520 - 1530

2 spiders

1 bl. larvae (shiny - Hemiptera?)

O-P-C - 1535 - 1545

3 shiny black larvae - 1 coll. - Ad. beetle - staph.

1 large " " (?) - coll. Sawfly

O-P-C' - 1545 - 1555 - 15' - SE of C - same habitat

1 spider

1 sm. bl. bel fly - coll. sawfly

O-P-D - 1555 - 1605

1 bl. beetle - coll. - staph.

1 spider

O-P-D' - 1605 - 1615 - 40' - E of D - same habitat

1 spider



Holmes, R.  
1962

## Observation Plat - 2

29 June Barrow, Alaska

Weather: clear (few clouds in distance) - Sunny - 10 mph E. wind

OP-A - 1410-1420

1 very small bl. fly

3 sawfly

OP-A' - 1420-1430. ~8' SW of A - similar veg. - per  
1 <sup>wing</sup> sm. bl. fly more grass

~~Tipulidae~~ Ad (2 wingless (1 large winged)  
1 med. "House" fly - mature wingless

1 small Tipulid Ad - coll. - wingless

OP-A'' - 1430-1440 - 30' west of A - more Salix

1 med. House fly-like - coll.

3 sawfly

1 very sm. bl. fly

OP-B 1440-1450

1 Staph beetle Ad

1 Hemipteran - Ad

1 Sawfly

OP-B' - 1450-1500 - 10' S. of B

1 Ad. Chironomid

1 spider

OP-B'' - 1500-1510 - 30' S. of B

1 sawfly



Holmes, R.  
1962

O-P - 2

29 June Barrow, Alaska

O-P-C<sup>1</sup> - 1510 - 1520

2 spiders

2 Sawfly Ads

1 lge Ad. chironomid

1 <sup>very</sup> sm. bl. fly

O-P-C' - 1520 - 1530. 10' E of C

4 sawfly Ads

O-P-C'' - 1530 - 1538 15' - 50' of C

3 Sawfly Ads

3 Spiders

1 Ad. Chir.

O-P-D - 1540 - 1550

1 Ad. Sawfly

OPD' 20' E - 1550 - 1600

4 Ad. Sawfly

OPD'' - 1600 - 1610. - 30' E of D

3 Ad. Sawflies

1 mosquito

30 June Warm - practically cloudless day - with many mosquitos + midges in evidence. Also, large numbers of adult tipulids seen near the ponds in Central Marsh.

1 July low overcast all day with some rain + fog

2 July scattered rain showers - clearing toward evening.

10

1

Holmes, R.  
1962

Observation Plots - #3

3 July Barrow, Alaska

Weather partly cloudy - some sunstreaks. Wind blowing 8-15 mph. No waves - calm. Snow flurries during the morning

OP-A - 1330-1400.

3 Ad. midge  
2 Ad Sawfly  
2 sm bl. fly

O-P-A' - 30' SW of A - 1400-1410

2 lge Ad Tip. (winged unless stated otherwise)  
2 "House" Flies  
4 Sawfly  
2 small black flies  
1 spider

O-P-B - 1410-1420

1 med-sized Ad. Tipulid  
3 Sawfly (1 wingless)  
2 sm. bl. flies

O-P-B' - 30' SW 1420-1430

2 sawfly  
1 Ad. crane fly

OP-C - 1430-1440

3 sawfly Ads  
1 midge Ad

OP-C' - 18' W 1440-1450

3 sawfly Ads  
1 midge Ad

OP-D - 1450-1500

3 sawfly (1 wingless)  
2 sm. bl. flies  
1 brown-winged fly } coll.  
1 med. bl. fly } - - -

OP-D' - 40' E - 1500-1510

1 med. bl. Tip? - coll.  
3 med bl. - 1 coll in D  
2 sm bl. flies  
2 sawfly





Holmes, R.  
1962

Observation Plot - #4

7 July Barrow, Alaska

Weather clear with 3-8 mph west. wind. - Windless

This a.m. - with many mosquitoes?

OP-A - 1350-1400.

3 sm. H. flies

1 med H. fly (coll. lat + tip)

OP-A' - 10' So.

3 sm. bl. flies

2 med bl. flies

2 lge. Ad. Tip.

O-PA'' - 20' SWS

8 Sawflies

3 sm. bl. flies

2 lge Ad Tip

3 Sawflies ✓

2 " House flies

sew. mosq.

1 Ad. midge

sew. mosq. (12+)

2 Ad. midge

1 large bee

OP-B - 1420-1430

6 sm. Ad. Tip. (Pedroia) - 1 coll.

6 Sawflies

4 sm. bl. flies

1 lge Tip

1 Ad. mosq

1 Ad. Carabid

mosquitoes - 12+

O-P-B' - 6' N.B. -

6 Sawflies

6 sm. bl. fly

3 sm. Ad. Tip

2 lge Ad Tip

3 lge Ad. wingless fly

3 House fly

12+ mosquitos

OP-B'' - 10' So. - sawflies - 4

2 - lge wingless Tip - spider - 1

3 sm. Tip

- sm. bl. flies - 6

1 Ad. midge

- sm. bl. wingless Tip.

tick - 2

(coll. - went up)

mosq. - 12+



Holmes, F.  
1962

O.P. #4

2.

7 July Barrow, Alaska

OP-C 1530-1600

2 Ad. midge 7 sm. bl flies 6+ mosquitoes

6 sm Ad Tip. 1 wingless Ad. Tip

2 sawfly 1 med. bl. fly

OP-C' 10' NW

3 Ad. midge

3 sawflies

12+ mosquito

4 sm. Ad. tip

6 sm bl. fly

1 bl. wingless  
Tip. ?

1 lge Ad Tip

1 brown-winged med fly

OP-C'' 10' SE

1 sm Ad. tip

10+ mosquitoes (incl. tim grave)

3 sawfly

5 sm. bl. flies

OP-D-1520-1530

4 sm Ad. Tip.

4 sm. Ad. bl. flies

3 Ad. Sawfly

1 lge Ad. Tip.

1 spider

6+ mosquitoes

OP-D'-25'E

2 Hemiptera

4 sm bl flies

6 sm. Ad. Tip.

1 lge wingless Tip

3 Ad. Sawflies

12+ mosquitoes

OP-D'' 30'E

1 lge sm Ad Tip

- 6 sm. bl. flies

3- lge winged Tip

- 6+ mosquitoes

2 spiders

1 bl. wingless Tip? [? Pedicia]

3 sawfly



Holmes, R.  
1962

OP - #5

1

11 July Barrow, Alaska

Overcast - 35-40°F - 2-7 mph E wind - cloudy

OP-A - 1310 - 1320.

1 ♀ Pedicia

8 - sm. bl. flies

2 ♂ Tipula

6 - sawflies

1 - spider

3 - mosquitoes

OP-A' - 10' S.

1 ♂ Pedicia

1 ♂ Tipula

3 "House flies"

8 sm. bl. flies

4 sawflies

4 mosquitos

OP-A'' - 30' SW

1 ♂ Pedicia (A - coll.)

7 sm. bl. flies

2 ♂ Tipula

2 mosquitos

4 sawflies

2 Ad. moth (coll)

1 hymenoptera

1 caterpillar (coll)

OP-B.

6 sawflies

3 sm. bl. flies

OP-B' - 10' N

3 sawflies

1 ♀, 2 ♂ Pedicia

3 sm. bl. flies

3 ♂, 2 ♀ Tipula

OP-B'' - 20' N

11 ♂ Tipula Ped.

1 Ad. Chir.

3 ♂ Tipula

3 sawflies

1 sawfly



Holmes, P.  
1967

OP - #5

2

11 July Barrow, Alaska

OP-D 1410-1420

2 ♂ Tipula

3 sawflies

1 Hymenoptera

3 sm bl. fly

OP-D' - 10' NW

1 ♀, 1 ♂ Tipula

3 sawflies

1 ♂ Pedicia

3 med bl. fly

4 sm bl. & fly

OP-D'' - 10' W

3 ♀, 3 ♂ Tipula

5 sawflies

2 ♂ Pedicia

6 sm - bl. fly

1 Ad. midge

OP-D -

4 ♂, 1 ♀ Tipula

9 ♂ Pedicia

8 sawflies

4 - ? med. bl. fly

OP-D' - 15' E

3 ♂ Tipula

6 Ad. sm bl. fly

6 ♂ Pedicia

3 ? med bl. fly

1 Ad. midge

3 Ad. sawflies

OP-D''

7 ♂ Pedicia

3 sawflies

1 ♂ Tipula

6 sm bl. fly

1 Ad. midge





Holmes, R.  
1962

OP-6

15 July Barrow, Alaska

Weather overcast - 2-5 mph easterly wind.

OP-A - 1320-1330.

3 "House" flies (sm.)	4 sm. bl. flies
2 sawflies	1 ? bl. moth fly }

OP-A' - 20' NW

1 House fly (sm.)	2 sm. bl. fly
2 sawflies	1 unk. bl. fly }
1 dying <u>Tipula</u> ♂	

OP-A'' - 40' W

2 House fly (lg) (1 coll.)	3 sm. bl. flies
1 ♂ <u>Tipula</u>	
2 sawflies	

OP-B - 1350-1400.

1 pr. Tipula - copulating  
8 sm. bl. fly  
2 sawflies

1 long-ab. bl. fly  
+ 1 ♂ Tipula

1 br. moth (as coll. last OP)  
penet

OP-B' - 5' N

8 sm. bl. fly  
3 sawflies  
2 long-ab. bl. fly

1 spider

OP-B'' - 15' So.

1 ♀ <u>Reducia</u>	3 sawflies
1 dead ♂ "	1 long-ab. bl. fly
6 sm. bl. fly	1 ♂ <u>Reducia</u>



Holmes, R.  
1962

OP-6

?

15 July Barrow, Alaska

OP-C - 1430-1440. Weather - wind in to 8-10 mph - SE  
- Occasional sun

1 "House" Fly - 1 yr

2 med ? flies

1 brown moth

1 long-ab. bl. fly

3 sm. fl. flies

OP-C' - 30' W

1 "House" fly

3 long-ab. sp. fly Mycet

1 mosquito

2 Sarcophila

3 sm. bl. flies

1 spider

OP-C'' - 10' S.

3 sm. bl. flies

1 mosquito

1 hemiptera

1 spider

2 long-ab. bl. flies

OP-D - 1500-1510

1 pr Prionocera - copulating

6 sm flies (3 brown, 3 black)

1 ♀ Tipula

1 spider

1 Ad. Phlebotomus

2 long-ab. - bl. flies

2 Lge House flies

OP-D' - 15' W

(3 Pyraustea / Tipulids)

2 Lge House flies

6 sm bl fl

2 sm brown flies

OP-D'' - 20' E

1 ♀, 1 ♂ Pedicia

3 sm bl fl

1 dead ♀ Tipula

1 spider

1 "House" fly

1 sm bl. midge



Holmes, R.  
1962

O-P - #7

4

19 July Barrow, Alaska

Weather mostly clear - with only thin scattered clouds. 0-3 mph - easterly breeze - generally sunny & warm (45-55)

OP-A- 3 sm. House fly #1

1315-1325

6 sm. H. flies

4 mosquitos

OP-A'- 10' So,

3 sm. H. flies

3 lg. House fly

OP-A''- 30' - SW

101 mosquitos

3 sawflies

3 sm. H. fly

3 sm. House fly - 2 #1 - 1 #2

6 mosquitos

2 lg. House fly

1 sm. House fly #1

OP-B-

2 sm. bl. House fly #1

2 sm. bl. fly

6 mosquitos

OP-B'- 15' N

101 mosquitos

3 sm. H. flies

OP-B'- 25' N.

6+ mosquitos

1 sm. #1 House fly

2 lg. bl. House flies

2 sm. H. flies

\* - seems to be 2<sup>sm</sup> House fly - 1 immature lg. one - rather shiny black - with orange under. segs & quick pupal movements (#1)



Holmes, R.  
1962

OP-7 &

19 July Barrow, Alaska

OP-C - 14/5 - 18/25

2 lge House Flies

2 sm bl. flies

OP-C' - 30' SE

10+ mosquito

OP-C'' - 30' SE

4 sm. bl. fly

2 saw flies

4+ mosquito

1 saw fly

6 sm. bl. flies

6+ mosquito

OP-D -

1 sm #2 House fly

1 sm #1 House fly

6+ mosquito

1 saw fly

OP-D' - 10' SE

1 Lge House fly

2 long-ab. bl. flies

4 sm. bl. flies

10+ mosquito

OP-D'' - 30' E

1 Ad. Hemiptera

3 sm. bl. flies

10+ mosquito





Holmes, R  
1962

O.P. - 8

23 July Barrow, Alaska

Weather clear - strong (5-15 mph) south-east wind.

OP-A - 1320-1330

1 lge "House" Fly

OP-A' - 10' so.

1 lrg. bl. fly

1 med. bl. fly (sawfly)

1 (1cm) green caterpillar

OP-A'' - 30' SW

2 lge "House" Fly

OP-B - 1350-1400

1 spider

OP-B' - 20' SE

- 1 sawfly

OP-B' - 5' E

1 spider

1 bl. (sm) fly

OP-C - 1420-1430

1 sm bl. fly

OP-C'' - 50' SE  
2 spiders

1 sm bl. fly

OP-C' - nothing - 0

- 20' E

O.P.D - 1450-1500 - nothing

OP-D' - 15' E

2 sawfly - (1 coll.)

OP-D'' - 40' SE - nothing (1 Tipulid larva)



Holmes, R.  
1962

OP. #9

27 July Barrow, Alaska

Weather overcast - 5+ mph wind (NW) - 80°F - cool - rain or mist  
yesterday

OP-A - 1330-1340 1 sawfly

OP-A' - 15' SE nothing

OP-A'' - 15' - So. 1 sm. bl. fly

OP-B - 1350-1400 - nothing

OP-B' - 10' - So - "

OP-B'' - 20' - SW "

OP-C - 1410 - 1420 - nothing

OP-C' - 10' W - 1 sawfly - 1 spider

OP-C'' - 10' So. - nothing

OP-D - 1430 - 1440 nothing

OP-D' - 10' E - "

OP-D'' - 20' SE ?

Ground very wet - small puddles in nearly all  
depressions

10 minutes at stalled plot - 5 minutes  
at chick plots



Holmes, R.  
1962

OP-10

2 Aug Barrow, Alaska

Weather clear & calm all morning - overcast by  
1300 - light sprinkles + 3-10 mph east wind.

OP-A - 0 (1340-52)

OP-A' - 0 - 8' S

OP-A'' - 0 10' SW

OP-B - 1400-1410 - 1 spider

B' - 6' NW - 0

B'' - 12' NW - 0

OP-C - 1420-1430 - 1 sm. fly - coll. - det.

C' - 15' S - 1 sm. bl. fly - deep in litter - coll. - det.  
2 lg. "flies" - coll. (1 with yellow spots)

C'' - 30' S - 1 sm. bl. fly coll. (saw fly?) - det.

1 green caterpillar (saw fly)

1 saw fly

OP-D - 1445-1455 - 2 ♂ Pedicularis, 1 Red. Saw fly

D' - 15' W 1 saw fly - 15 picks

D'' - 30' W 1 " - coll. 50+



Holmes, R.  
1962

OP-11

6 Aug Barrow, Alaska





Holmes R.  
1962

OP-12

13 Aug Barrow, Alaska

Partly overcast - with some intermittent sunshine  
3-10 mph east wind.

OP-A - 1345-1350 - 0

OP-B 1355-1400 - 0 Trough is very moist -  
moist is like a wet sponge -

OP-C - 1400-1405 - 0

OP-D - 1405-1410 - 0



Holmes, R.  
1962

OP - 13

17 Aug Barrow, Alaska

Weather overcast - fog hanging in distance  
cold - SE wind of 5-10 mph

OP-A-1400-03- - 0

OP-B-1410-1415- - 0

OP-C-1416-1421- - 0

OP-D-1427-1427- - 0



Holmes, R.  
1962

Berline 1962  
(B-2)

Sample

26 June Barrow, Alaska

Vacuum samples taken as before - 30 - 1/3 sq ft  
samples from polygon top; trough, ridge & slope &  
marsh. - all sorted after 2-5 hours - Berlin.

B2-1 - Top

B2-3 - Slope

B2-2 - Trough

B2-4 - Lowland

29 June Barrow, Alaska

B2-5 - Top

B2-7 - Slope

B2-6 - Trough

B2-8 Lowland

3 July B2-9 - Top

B2-11 - Slope

B2-10 - Trough

B2-12 - Lowland

7 July B2-13 - Top

B2-15 - Slope - machine not working properly

B2-14 Trough

B2-16 - Lowland

11 July B2-17 - Top

B2-19 - Slope

B2-18 - Trough

B2-20 Lowland

15 July B2-21 - Top

B2-23 Slope

B2-22 Trough

B2-24 Lowland

19 July B2-25 - Top

B2-27 - Slope

B2-26 - Trough

B2-28 - Lowland

23 July B2-29 - Top

B2-31 Slope

B2-30 Marsh

B2-32 Lowland

machine repaired prior to today's session -

detritus seen to be water, properly

29 July B2-33 - Top

B2-35 - Slope

B2-34 - Trough

B2-36 - Lowland

2 Aug B2-37 - Top

B2-39 - Slope

B2-38 Trough

B2-40 - Lowland



Holmes R  
1962

Berlese Samples - 1962

6 Aug. Barrow, Alaska

B2-41 - TOB

B2-43 - SLICE

B2-42 - TROUGH

B2-44 - LOWLAND

- These may be reversed!

17 Aug B2-45 - TOB

B2-47 - SLICE

B2-46 - TROUGH

B2-48 - Lowland

machine repaired & working well





R. Holmes  
1962 - 1964

Alaska

Journal

1963: Alaska: Barrow, Cape Thompson  
Canada: Banks Island  
Alaska: Barrow [insect sampling]



Holmes, R.  
1963

## Journal

27 May Barrow, Alaska

Peiper + I arrived at 1015 this a.m. and were met by D. Mullen + J. Humphrys. After getting settled + having lunch, we went out to the beach ridge - Wohlsehoy Slough + Elsa Lagoon.

The B.R. top is nearly all exposed - one clear strip of tundra 30 to 100 feet wide - with patches of snow only in the deeper ditches + troughs. There was very little bird activity in this section - only 3-4 ♂ + 2 ♀ Longspurs + several Pomarine Jays. Along the north side of Wohlsehoy, large areas ( $\frac{1}{4}$  -  $\frac{3}{4}$  acre) were exposed - mostly grassy tundra - here several Pectoral Sps + 1 Bairdi were located - as well as 7 Sanderling. Along Elsa Lagoon bluff - more open tundra - with the above species seen + 3 R. Turnstones, 3 Dunlin, 2 Semi-pal Sps., frequent Longspurs + several Pomarine Jays. Courtship activity was seen in SP + PS. Trits were heard from RB + BS + SP - In general the tundra was quiet, however - except for the occasional Longspursong.

The melt-off appears to be 7-10 days ahead of schedule + is progressing rapidly. Weather today (+ in general for the last 3 weeks - D.A.M.) was clear, sunny + warm (40-50°F). Many ponds of water are now seen on the



Holmes, R.  
1963

## Journal

2.

27 May Barrow, Alaska

undra & The snow is quite soft. Many polyg-  
lips are exposed & have been for a week or  
more. The equivalent date - for the  
start of melt of last year would be  
June 6-7.

Lemming sign is spotty - only occasional  
an active runway seen in the now-  
exposed tundra. The jaeger activity is not  
very strong & only 1 snowy owl was noted  
today.

28 May Barrow, Alaska

Organized lab in early morning, then walked out  
through drum area. Weather clear & sunny,  
many large puddles of water & in places, streams  
of melt water were pouring into the lower  
areas. Saw 2 SP & 2 BS, one of the former was  
displaying - see sp. acc'ts. Longspurs were abundant &  
their song was heard frequently. Lemming sign  
was much better than that seen on beach ridge  
yesterday - most of the tundra now exposed  
had signs of it - some the entire area  
was mowed, but in most, cushion was  
confined to the vicinity of the runways. No  
jaeger - or owl noted. - Several lemmings were  
seen in the clearing & 2 on top of the snow  
running between 2 patches.

In afternoon, drove to Britton's area -



Holmes, R.  
1963

Journal

28 May Barrow, Alaska

where snow-free tundra was present - little bird life except 4 PS, 2 RT + sev L.L. + SB. - Then into mud flat - where only 1 Pm. Jaeger was seen. Snow is still covering the stakes at Poles B, D, E. The top of C is showing + the snow level at A is 5.5. Went onto Village Slough - again Pm Jaeger seen occasionally. Returned via Cacheut - where they are now dismantling + along the Voth creek + facing Lagoon bluff - sev PT + 1 S. Owl. - otherwise no activity.

This part of the tundra was devoid of shorebirds except the PS + RT seen early in the afternoon. Snow conditions were not as far advanced as one might think - just Britton's area + bluff at Voth creek present any extensive open tundra.

In the evening - drove via beach ridge (where no birds - except Laysans - were seen) to Wohl + Ookpik sloughs. Bluff here were becoming exposed - sev PT, 4-6 displaying ♂ PS, 3 charming RB including 1 aerial display, 2 Bairdi, 2 RT, 4 Snow Geese, 1 ♂ Spectacled Eider. 1 Snow owl in display flight + in ground? Chaculiä display were noted. 1 PS ♂ on beach ridge near Poles. Weather today clear + warm, getting cool in last evening - Poles starting to freeze.





Holmes, R.  
1963

## Journal

4.

29 May Barrow, Alaska

Peiper + I went to beach ridge - Cooksfield slough, E. on lagoon, took pit + south for about a mile. On b.r. - only 1 PS ♂ was noted. on the bluff, numerous jaegers, 1 ♂ PS, 1 ♂ 2 RB, 1 BS, 4 RT, 1 S. Owl. Activity was light - only a few PS displays were seen and/or heard. Territorial activity was spotty - several animals were seen.

Afternoon spent in lab working on specimens + preparing insect-sampling data sheet. Cade + Ernest Willoughby, arrived in late morning. In evening, Willoughby + I went to Pt. Barrow. Saw 1 ♂ + 1 ♀ Snowy Owl near Elson, 4 ♂ FS, 1 ♀ PS, 2 RT, 2 BS, numerous pm. jaegers, long spurs + hunting?

Weather partly clear + warm in a.m., overcast + cool in afternoon - with 10 mph E wind + snow flurries in the evening.

30 May Barrow, Alaska

Morning in lab working on specimens + talking with Cade. After lunch, Muller, Cade, Willoughby + I went to Voth area, over a marsh beach ridge. 2 owls in Voth + 1 near beach ridge at the gasline, numerous jaegers. 1 RB, 3 SB, 1 BS, 1 ♂ PS - seen near Voth area. Weather overcast but bright - wind cold 10-12 mph from the NE.



Holmes, R.  
1963

## Journal

5.

31 May Barrow, Alaska

Drove to EISA bluff + worked south to 2 mi below Oodjek slough. Weather was windy (10-15<sup>NW</sup> mph), cold + there were snow flurries all morning (which have added snow to the tundra covering up some of the exposed areas - although not significantly) - bird activity was apparently suppressed. - only 1 display - that of a Pectoral scap. - was noted - no long spurs in display - but numerous Pectoral pairs were noted.

1 June Barrow, Alaska

Morning in collecting birds along EISA lagoon, between Brant Pt + Wohlseh slough (+ 2 RT - near Oodjek). Weather overcast with 10 mph NW wind + snow flurries - cold - ponds remained frozen all morning. Bird activity was low - 3 ♂ PS, 1 W. W. H., 3 South - 2 RD, so.; 4 Sanderling. This was total scap. seen. About 5 pairs of Ruddy Turnstone seen - several collected; nesting was already underway in part of the population. Jaeger seen frequently - 1 Tawny Spr. Afternoon - to Insect plot - where I took soil samples - no birds in this area. Moved to Voth. saw 1 ♂ PS, 1 SP, (also 2 RD - numerous jaegers + long spurs).



Holmes, R.  
1963

## Journal

6.

1 June Barrow, Alaska

mut-off has slowed - not much change in the last 2 days. Pond coverage at present has not changed since 29th. Snow flurries during the last day have covered many of the upland sites, although, Bird Ridge, Glen Bluffs, Willsie Bluffs (no. side), East Cove + East Creek Bluffs are exposed to varying degrees but all present a long continuous line of open tundra. Bird Bluffs, however, is covered to East + West Bluffs, + mostly to the former (East + longer).

Insect samples were packed in the evening.

2 June Barrow, Alaska

In morning, I walked out through the area - saw 1 ♂ FS, several birds, several longspurs + pintails + jaegers. Nothing else. Snow was light; many areas covered in by drifting, powdery snow. Weather high wind, cold SE wind.

In pm - Welloughby + I went to Akroavik - described here chronologically. Went directly to Henali Creek (yachic) - saw 16 For. Jaegers when scanning - went to south valley flood - where there were 3 For. Jaegers.



Holmes, R.  
1963

## Journal

7

2 June Barrow, Alaska

of exposed tundra = 1 700 x 50 yds - had 3  
♂ PS, numerous longspurs + several unknown  
pomarine jaegers. Another - 600 x 100 yds -  
3 ♂ PS, 2 ♂ SO - both displaying; the third  
was 600 x 300 yds. 5 ♂ PS - at least  
3 displaying - all seemed - 2 ♂ PS  
RB - chasing + 1 displaying - jaeger +  
longspurs. - but across to the road -  
north plot still covered with snow.  
South ridge becoming partly bare - saw  
1 ♂ PS. South of the plot - 1 ♂ PS + 2 RB.  
No more shorebirds were encountered -  
near south end of lake. Reached it  
across dry lake to eskpuk area and -  
saw 2 Golden Plovers, 2 RB (alternating with  
copulations), 2 ♂ PS, numerous jaeger + longspurs.  
The only snow on ground was seen - several ridges.  
Weather overcast, with - 10 mph east wind.

Melt off is not far advanced still -  
The areas mentioned are the only  
ones large enough to support  
birds on the route travelled - so there  
is still much melting to be done.

3 June Barrow, Alaska

Morning - lab working on specimens.

In afternoon - went to Oolipik via  
Point Barrow - (wonderful view). Weather





Holmes, R.  
1963

# Journal

3 June Barrow, Alaska

was overcast - 15-knot north wind - cold -  
most ponds remain frozen all day  
today.

Area between Boat PC & the polygonized  
ground, 100 yds north of Woll - was set as a  
removal plot. took 4 ♂ + 1 ♀ PS today -  
missed 3 RT. Flock of RD were  
located close to Solpik - seen collectively.  
Melt off is not proceeding rapidly due to a  
cold weather. The bluff have about  
50-75 yds of exposed tundra in width &  
nearly their entire length.

Evening - working on specimens.

4 June Barrow, Alaska

Worked on specimens in morning & then walked  
out thru drum area - little activity, except  
2 BS, few C.C., & few P. jays. Snow is  
gone from most polygons - but area is  
still 7/8 covered.

In afternoon - went along beach ridge to  
Wobleschly - along the south & then (Woll  
to Elgr - down to Solpik - & back -  
Pectorals - numerous (PSP - also); redbocks  
seen in loose flock - no other peps. <sup>EXPOSED</sup> Tundra on  
bluff is getting large - 100 yards wide  
now. That arrived late afternoon -  
Weather overcast - 5-10 mph north wind.



Holmes, R.  
1963

Journal

9.

5 June Barrow, Alaska

Went to Voth-Britton area in a.m. - snow is now disappearing rapidly from the tundra - most of Britton's area is exposed - part of the ridge between Voth & Britton's. The Voth area & the bluff along the west side of Voth creek. Weather was overcast, misty, 5 mph NW wind.

In afternoon, I went to Eison bluff, north of Wohlshlog - <sup>snow is now</sup> ~~the area is now~~ melted - to a point equal to 15 July / last year (i.e. when we were watching the Curlew Sep. display). There is now a continuous strip of snow-free tundra between Brant Point & Wohlshlog slough, varying in width from 50 to 150 yards. More Dunlin activity was noted today; jaegers were displaying & apparently settled. Specimens were prepared in the evening.

6 June Barrow, Alaska

Muker & I went to Village Slough bluffs via Britton's & Voth's areas. These locales were the only ones in this direction which had large areas of snow-free tundra. Pectoral Sandpiper in all of these areas & were by far the most abundant sandpiper. Dunlin were seen scattered in Voth Area & Village fls & one nest of this species was found (4 eggs & inc. ♀).



Holmes, R.  
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Journal

10.

6 June Barrow, Alaska

Pomarine Jaegers were scattered in these same areas + were showing signs of settling.

The snow is becoming mushy + soft + appears to be disappearing rapidly. The shift 1 wind yesterday + the west, continued today and by late morning, there was only a very light westerly breeze, the temperature being in the low to mid forties.

In afternoon, Made the assoc. - McLean + I went to Beach Ridge - saw Semi-palm display, PS, RB, + heard 1 BS over magnet station. At south end of beach ridge, 2 snow owls were seen - the ♂ was doing a dracula display. Weather remained good - moved + warm.

In evening - went to Voth area - found 1 more nest of C. alpinus - with 4 eggs + incubating ♀. - Several more seen as well as pectoral + Semipalm. Snow is going fast in Voth-Britton Area - much half exposed water running off in streams. Weather calm, overcast.

7 June Barrow, Alaska

Morning - lab working on specimens - in afternoon went to Odipik Stage - saw flock of ♀ PS, 1 Sift Sandpiper, several displaying Dunlin (1st. escape). Weather



Holmes, R.  
1963

Journal

7 June Barrow, Alaska

-Mid fog - misty. Snow melt progress rapidly & evbl. almost unrecognizable.

In evening - went to 2 plots & took soil samples - found 3 Buff-breasted Sandpiper chasing - both bluffs are almost free / snow - except in ravines - but deeper - not noted.

8 June Barrow, Alaska

Left at 0800 & went to both areas - Vulture Gough (where PS nest was found & flock of 4 ♀ PS, ♂ PS, RD + SD were also seen); lagoon just barely crossable - then to Ikroavik where plot was checked. 1 ♂ PS in north plot - which was still  $\frac{3}{4}$  covered with snow. South plot empty - almost bare - but only 1 ♂ PS seen. Returned via Redoubt ridge + Arcoi Gorge. 1<sup>st</sup> Rapunzelia

Pectoras were by far the most abundant Sandpiper today. Sooty-bellied were on every patch of open ground. + flock of 4 ♀ were moving through. Snow is going fast & travel has become difficult. Litter is in





Holmes, R.  
1963

## Journal

12.

8 June Barrow, Alaska

Morning was heavy fog + light - faded  
event.

In afternoon - went to ELSON -  
where snow is also melting, rapidly -  
Area - 127 to wide now - further back  
than where it was where we found  
Curlew Sep. last year. Snowy Owl  
numerous - about 2 (♂-♀) along ELSON -  
2 (♂) on beach ridge. Weather: high  
overcast - 5-10 mph - east wind.

In evening - to North + Trepash III & D  
Area - heavy fog + mist prevented me  
from seeing much - but I did count  
the 3 Buff-breasted + watched them for  
awhile. Several semi-pal were displaying  
+ more flocks of 7-8 PS were encountered.

9 June Barrow, Alaska

Beach Ridge + AAS - weather foggy, light  
NW wind. Beach Ridge - now free  
snow from gullies to snowdrifts + holes.  
Many are, are 100-150 yds wide. The ground  
north of the ridge is now partly exposed  
+ the ponds are muddy - i.e. - making  
travel difficult. 1 ♂ PS, 4 BS, 2 SP  
+ 1 RB seen + 10 heard - none seen.  
Also Snowy owl + Parnassian



Holmes, R.  
1963

# Journal

13

9 June Barrow, Alaska

In afternoon - went down west side of central marsh - which is now covered with 1-2' of water + mushy ice. Crossed east end of gasline ridge to fertility plots. To the point, most areas were immediately with snow or melt water. However beyond the fertility plots - especially on the north shore of Colpitt slough large expanses of open tundra were encountered. Pectorals (both ♂♂ + single ♀♀) were common, only occasional RB were seen. Lemming sign + the presence of sev. jaegers and an owl indicate a poor lemming population.

The <sup>expected</sup> trip to the north star the short Elson is now 50% and white + the pectorals + few ducks were widely scattered. Relatively little digger activity was encountered. No flock of any shrub species was seen.

W. side - went to cabin - occasional sun. By evening heavy fog settled in, so lab work was done at this time.



Holmes, R  
1963

# Journal

10 June Barrow, Alaska

In morning went to insect plots + took samples. Stopped in Britton's area to check RO nest. It had been destroyed by a vehicle. This area is entirely free of snow now + this year. Extends all the way to Voth - except some snow patches are present near Trepur III A+B.

At the insect plots - the rigs + polygons are open, but the ponds are still snowed in. There is some standing water in Pond C - but in none of the others. The ponds at the lowland site are still snowed in.

Weather this morning was clear, sunny - with a cold 10 mph NW wind. - There was little bird display activity.

Afternoon. Stevens + Logsdon arrived on Uien + Maher + his crew departed on IRL. Afternoon spent getting mail + Maher + safe guarding our supplies. Insect samples were picked. In evening, I went to Eisa lagoon + Wobbsley. Weather was clear, with a 5-10 mph wind from the east. Bird activity was light - little displaying. No pectoral flocks.



Holmes, R.  
1965

# Journal

11 June Barrow, Alaska

In morning, Stevens, Lossdor, & I went to beam ridge - where bird activity was very light - & then to gravel ridge - where BS, RB, & PS were actively displaying.

In afternoon, Pitelka who arrived in late morning, & I went to beach ridge - saw <sup>BS & PS</sup> PS display - NO redbocks. Talked over rescue plans for summer - met Muller & talked over various topics.

In evening, I went to Voth slope - Voth area - & found first Pomarine Jaeger nest - with one egg. Herring gull was good along Voth bluff. - GASLING - Blooming Saxifraga oppositifolia.

Weather today was <sup>partly</sup> clear - with fog settling in for short period / time. - Cold - 10-15 mph NE breeze.

12 June Barrow, Alaska

In a.m. Pitelka & I went to beach ridge where Pitelka censused his plot & I went onto the renouae plot on EIAA lagoon. 3 more jaeger nests were seen - Sandpiper activity was low - very few Dunlin were seen - Pectorals were seen scarce, but several were noted along north shore of Wohlsehlag. In afternoon, I passed insect samples, talked with Pitelka & Deleviche





Holmes, R.  
1963

# Journal

16

12 June Barrow, Alaska

for a while & then went to AACS area -  
when all birds were scarce - except  
leucidis - 1 white Y ♂ - display was  
noted.

Weather today windy (10-20 mph) -  
cold - and occasional sun shown  
through.

Worked a lab in evening - unloaded car  
in ready to take Pitelka & me to the airport  
from flight to Cape Thompson - left at ~  
2300. - saw 3 Snowy Ours between Barrow &  
Skull Cliff - weather inclement & foggy.

Arrived Thompson - 0200 - 6-13-63 - met  
Harry Strom, camp chief, Bill Brown, & 2 U.S.  
G.S. (Taillens & Gary Anderson). - went to Red -

13 June Ogotrook Creek, Cape Thompson, Alaska

- left camp at 0800 - took road up side  
of Crookwell Mtn - to north / camp - reaching  
top of ridge at 0845. We then walked  
north (to east) along high ridge - where  
rained in height from 500-700' - above  
Sea level. - covering 3-4 miles during  
about 7-8 hours. Habitat here was  
rocky - (shale) - ground covered by low-  
growing Arctostaphylos + Sedum. Occasional  
patches of grass were encountered - There  
had good amount Sedum. Birds seen along



Holmes, R.  
1963

# Journal

17.

13 June

Ogotank Creek, Cape Thompson, Alaska

ridge top: Horned Lark, Water Pipit, L. L. Lark  
longspur, <sup>snow Buntings</sup> Baird Sandpiper (3 pair), Golden Plover  
(4-6 pr), Knot (1 nest, with incubating bird),  
(at least 3 others), Raven, <sup>Redpoll</sup> L-t. Jaeger, Rock Ptarmigan 10

After watching the knots for most of the day, we returned to camp in late afternoon, huddled + napped for awhile. At about 1730 - 1 tube + 2 walked up along Ogotank Creek + along the adjoining hill slopes. The creek bed contains small willows - up to 3' tall + scattered clumps of grass. The hill slopes are covered with Eriophorum tussocks. Birds seen: Wilson's Snipe (with 1 bird with nest - 4 eggs - on edge of sedge tussock - in well drained area - 40' from stream bed - bird gave a strong distraction display with tail spread + vigorously wing out to the side + flapping - squeaky call note), Savannah Sparrow (1 nest with 6 eggs), White-cr. Sparrow, Redpoll, Long-tailed Jaeger (6+), Canada Goose, Glaucous-winged <sup>Loon</sup> (at stream mouth), Black Brant (large flocks along ocean), Semipalmated Sandpipers, No western Sandpipers (even though hill sides + creek bottom were thoroughly checked + creek was calm - snails could have been heard).



Holmes, R.  
1963

Journal

18

13 June Ogotovuk Creek, Cape Thompson, Alaska

Golden Plovers, Raven, Tree Sparrow (1 heard),  
Short-eared Owl (displaying, 500' away - gave  
soft hoots - 5-8 x successively), Bar-tailed  
Godwit (1 flying over ridge - 1 along creek), Golden Eagle.  
<sup>(1 least + 1 similar Sparrow)</sup>  
Weather clear, calm & warm -  
beautiful day

14 June Ogotovuk Creek, Cape Thompson, Alaska → Barrow

Went back up the ridge for a  
couple of hours - saw at least one knot.  
Plane returned about 1200 - so we left  
the high country & returned to camp.

Left Cape Thompson at 1400 - flew to  
Pt. Hope - where we spent about  
45 minutes - saw 2 Western Sandpiper; &  
1 Semi-palm. Sandpiper. Weather clear &  
warm - fog hanging off coast.

Left Pt. Hope at 1500 - flew over  
Gull Lake - about 30 pairs on island -  
birds sitting on eggs - picture taken for  
butter #1 - Arrived at Barrow at  
1900. - evening spent in clearing up  
& sleeping.

15 June Barrow, Alaska

Left for Ikroavik at 0800. spent all  
day on census plot - returned to  
lab at 1700. Weather mostly clear,  
very light easterly breeze.



Holmes, R.  
1963

## Journal

19

15 June Barrow, Alaska

Pectoros were 'super-abundant' on the census plot - dense - yet. Redbone were scarce. Bird activity (mostly DS + RP + LL) was good. The tundra is drying out fast & most of the snow is now gone. - In evening & dawn am - fog & rain.

16 June Barrow, Alaska

In a.m. - went to census plot via beach & gas line ridge. - became fairly boggy, <sup>water</sup> snow flowing out a the stream. Took pond samples & did only one Vanner survey - then the machine broke down. Returned via same route, collecting 3 RB, + 3 SPB on the way.

In afternoon, I pursued the above birds & event to north beach ridge - where SW. baridi + 1 open were obtained. Weather today was sunny with a 5 mph westerly breeze.

17 June Barrow, Alaska

Left for Ikroavik at 0845 - arrived at 0930. Weather foggy & windy in early am - but by 1000 - it was clear & warm. I censused the plot - during the day. The pectoros were still dominant & there was little redbone activity. The bird





Holmes, R.  
1963

20.

## Journal

17 June Barrow, Alaska

display slowed by mid afternoon & the  
for and / south plot was not well  
censused. Found 3 pectorals & 1 water  
nest today - see sp. acc'ts.

In evening, the weather was still  
clear & calm - i.e. I went to beach  
edge & EIS & lagoon - with the intention  
of recording song. But a severe  
fog and activity was very quiet &  
little success was attained. A light  
breeze came up at 2100 & recording was  
stopped at that time. One pectoral  
was removed from the ~~survey~~ removal  
plot.

18 June Barrow, Alaska

Morning spent working on pond samples  
and specimens in lab. In afternoon, I  
went to insect ponds & took  
soil samples. Found 2 RB nests  
south of South salt lagoon - each with  
4 eggs. Hunted in area south of salt  
pond / footprints - saw 2 RB only &  
collected them. Pectorals were fairly  
common.

Weather overcast - with occasional  
sunny periods - light S-W wind breeze &  
mist. Evening in lab on specimens.



Holmes, R.  
1963

Journal

21.

19 June Barrow, Alaska

Worked in lab until 9:30 - then Ostell & I went to his census plot & observed at least 3 Western Sandpiper. However - there was little display activity - because of the days foggy windy weather. A few perches were seen - birds & redboots heard.

In afternoon, I hunted North beach ridge - collected sev. sandpipers - see catalog. Bird activity was low.

20 June Went to insect plots & took vacuum samples (before the machine broke down), prod sample & observation counts. Ad. Tipula were noted - 19 June - or over adult Pedicia. Many pupae are apparent in the samples. In afternoon, I returned & completed the vacuum-job. Then hunted through the area S. of North & collected several perches. Weather clear today but cold & windy (10-15 mph from E). In evening, I hunted in the BR-North meadow lake area & collected 3 Redboots.

21 June left for Shroveton arrived. after breakfast & stayed in plot until 1600. Weather was overcast. with 10 mph - east wind - cold. Perch activity was still good, but hub also was seen in. Barrow - observed seeing



Holmes, R.  
1963

# Journal

22.

22 June Barrow, Alaska

Weather sunny - with 10 mph east wind.  
We took a beach ridge in morning & found  
nest of Western Sandpiper. The  
afternoon, soil samples were taken &  
hunting was done in the Voth Area.  
Evening in lab & happy hour.

23 June Barrow, Alaska

Soil samples picked & notes written  
in lab during the morning. In  
afternoon, I went to Elyon Lagoon  
& Wohlshuber Slough (after leaving  
Trail on Beach Ridge). Weather  
clear, light NE breeze. In evening - to  
Voth Area. Bird activity was not  
great.

Insects - Adults were very evident today -  
midges were flying over the marsh area &  
several Hb-7. pale were flying low - over  
the ridge.

24 June Barrow, Alaska

Samples finished during morning & then  
I walked out into the drum area  
where there was very little display  
activity. Several semi-pals & 2 ad  
beards.

In afternoon, I took insect and  
soil samples, vacuum samples, & observations.



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1963

Journal

24 June Barrow, Alaska

counts. Weather was overcast with a 5-10 mph north wind. Several ~~typical~~ adult ~~typical~~ & chismomids were seen; the #1 adults are on the increase.

Bird activity was again low: no pectoral and displays were heard & seen - all - 2 or 3 chism were observed. One flock of 45 ♂ pectorals near the cake eater road.

In evening, samples were procured & notes <sup>were</sup> written. Weather deteriorated - heavy fog - light winds.

25 June Left for Ikroavik after processing one specimen. Arrived there at 0900 - entered the south plot first - found 1 western sandpiper & 1 white-rump. Pectoral activity was low compared with four days ago. By mid afternoon, there was literally no display & male chasing. Returned to Barrow - arrived at 1730. Weather overcast - 0-5 mph breeze (N.) in morning, 5-10 mph E at afternoon.

In evening specimens were procured & notes written. Air fog settled in by 1900 & there was a cool & moist east wind.





Holmes, R.  
1962

## Journal

27

26 June Barrow, Alaska

Weather in morning was sunny - with a light wind from the north-east. After dropping Pitel at his census plot, I hunted along Elson Lagoon & the north shore of Wobbe. with relatively little success. Several flocks / parties along the lagoon & several localized ♂♂ 3XB seen - none heard in display.

In afternoon - went to insect plot where sod sample #5 was taken. & then I hunted through Treaders south of north & south of middle salt lagoon (E of north). Again, flocks / parties were the most obvious birds; one pair of alpins. 1 nest / pinella near lake area. Weather became overcast & windy. By evening. The fog & mist had settled in - making weather conditions light informal. Evening spent in processing specimens & working on abstract for Science paper.

27 June Barrow, Alaska

Processed sod samples in morning & then went to beach ridge & collected 2 PS + 3BS. Afternoon & evening in lab working - Sod samples, specimens, & notes. Weather cold, windy, misty & generally nasty.



R. Holmes  
1963

# Journal

23.

28 June Barrow, Alaska

In morning went to gasline ridge - meadows lake region, collecting. In afternoon, bird samples, etc. were taken at the insect plots. Weather overcast with a moderate (10-15 mph) east wind. Evening, left at Dr. Mullins'.

29 June Barrow, Alaska

Left for Thraupis at 0830 after checking on Berlese's. All day was spent on the plot where standard activity was on the decline. Weather - partly overcast, some sunbursts, light east wind. By evening the weather was settling in - overcast. Due fog & mist. Evening spent in returning & preparing to retrieve contents of mail which arrived at track & the specimens were processed.

30 June Barrow, Alaska

In morning, mud samples were picked & then a brief census of mud activity was made in the 20-25 area. In afternoon soil samples were taken & a hunter trap was moved south of Voth area. There was little display activity noted. Weather - overcast & windy (wind 10-15 mph). Rain began falling in mid afternoon & it continued into the evening. Pitelka & I went to Mullins' for dinner.



Holmes, R.  
1963

Journal

1 July

Barrow, Alaska

Morning spent in lab writing field notes + processing  
sod samples. Pitelka departed on 6/28  
in early afternoon + I went to Gasline ridge +  
vicinity. Weather overcast with a 5-10  
mph ~~from~~ west wind. Some pectoral activity  
was found south of Gasline ridge - where  
two ground courtships were noted. + several  
small flocks of ♂♂ + ♀♀. Apparently, 2  
heavy rain fell in the early morning hours +  
the tundra was much wetter than in past  
days.

In evening, more notes were written,  
specimens processed + sample picked. Fog  
settled in by 1900.

2 July

Barrow, Alaska

During the morning, I took Dr. Nils Fogad  
a Danish biologist working on diatoms - to  
Central marsh + along the north shore of  
Waples bog Slough + up along the east  
side of beach ridge. The weather was  
foul - overcast with a strong west wind -  
there was little bird activity.

In afternoon, I took insect samples.  
The weather remained the same.

In evening, samples + specimens  
were processed.



Holmes, R.  
1963

# Journal

## 3 July Barrow, Alaska

left for Ikroavik at 0830 + stayed on the plot all day - The activity was mixed - some ♂ pectorals were still displaying but a number of ♂♂ have departed - altho no flock were in evidence. Some Redboob were seen + 2 mm RD nest were located.

Weather was overcast in the early morning but cleared by 0100 + it was clear + warm, only a very light wind (from west - then shifting to north). In evening, it became overcast + windy (NE - 10 mph). I went to AAC for census work - but there was little activity. - On return, I helped Dr. V. Hessler get more gasoline for his truck.

## 4 July Barrow, Alaska

In morning, I wrote notes + caught up in lab work. Bohnsack came - with a dead ♂ found in drum area - also with report of a semi-pet brood - behind the animal house. Weather was overcast, then fog + light rain + mist - light S wind breeze from the north east.

Rain continued all afternoon. I went out + took 2nd. Samples. Returned





Holmes, R  
1963

Journal

4 July Barrow, Alaska

promised several birds before going to Mullens' for supper.

Snow started falling about 1630 + continued for the rest of the evening. By 2200 - there was about 2" on the ground + icicles hanging off the buildings. Steve Holland + I walked out into the drum area + checked on the birds - which were getting frantic. The hantings seemed most upset + both members of the pair were out scurrying around trying to find food - presumably for the young. A brood of semi-pals was found + there were being brooded by 1 adult. The adult semipals were feeding on the leaf mounds + also mud mounds - but were having a difficult time of it.

5 July Barrow, Alaska

Snow still covering the ground - but in camp + on the tundra. In the latter place - it covered about 80% of the ground (at 11:30) + probably 70% at 1200 - the melt + snow cover - depth: The depth varied - being 2-3" on the level - + over a foot in some of the drifts.

I censused Pitelka's plot during the morning + found the bird activity



Holmes, R.  
1963

# Journal

29

3 July Barrow, Alaska

to be very quiet - no displays / on  
soot (except 1 adult & very by a longspur)  
were noted. The only Pectorals seen  
were snowbirds - about 47 - seen -  
44 pectorals were flushed from snow -  
covered nests (44 + not under snow) - seen &  
seen yet & with soot-pigeon. One P.  
nest & 1 R. nest (with 3 eggs) - ~~now~~ had cold  
eggs. One longspur nest checked &  
contained young - not found were  
~~dead~~ deserted (fledged & predation? -  
seen / not perigee).

It seems that birds which were  
still on eggs are better off - but now  
with small young - may have  
problem getting small nests.

Sod sample processed in evening

6 July Barrow, Alaska

weather was clear & beautiful today -  
a light wind from the W + SW came  
up in the afternoon. During the morning,  
I went to gasoline bridge & meadow  
lakes - where several small flocks of  
pectorals & 2 or 3 snowbirds - 1 collected.

In afternoon, pond, vacuum tober. says  
went take in insect-vol area. Mosquito  
were bothersome. Insects very abundant -



Holmes, R.  
1963

# Journal

7 July

Barrow, Alaska

Steve Logsdon, Dick Morlan (Anthropologist from George Washington Univ. - student of Campbell!) & I went to Ikroavut & spent entire day - plot. Weather was clear - wind - light S-E breeze. Mosquitoes were bothersome - many adult *Lydia* seen. Bird display activity had previously ceased - large for 2 or 3 previous & week.

In evening - specimens were processed

8 July

Barrow, Alaska

Continued Frank P. (Pitts?) plot on beach ridge in morning - little bird activity - no display. Located a redoubt to former plot met. & checked others.

In afternoon - went to same plot & took soil samples & checked nests near VTR area. Collected birds near AAS in evening, aft processing the 1 pond sample.

Weather was clear - but windy (10-15 mph - SE) - no mosq. were seen or felt - adult *Tipula* were noticed, however. The ice started to melt off shore in afternoon.



Holmes  
1963

Journal

31

9 July Barrow, Alaska

left for Inuarik at 0830 + spent all day on the census plot, locating putred nests. Little display activity by any species; some flock / putred nests. The day was overcast. A light breeze to S-NW was blowing from the SE. No mosquitoes today - but typical adults were very noticeable.

10 July Barrow, Alaska

I went to gasline ridge - N. meadow lake in a.m. + collected. Located 2 broods of redbocks + scattered groups of putred nests, 1 flock of 4 semi-pal + 2-3 pairs of birds. No displays - exc. briefly redbocks. In afternoon, pond + vacuum samples were taken at the insect area.

Weather: partly overcast - occasional sun - 5-10 mph easterly wind. No mosquitoes, but surface insects were ext. abundant.

11 July Barrow, Alaska

Morning in lab writing notes + processing pond samples. In afternoon, I made a nest check - the beach ridge census plot. I've developed a <sup>nasty</sup> "cold" which is slowing my fieldwork. Weather today - light rain + mist during the day - relatively hard at times.





Holmes, R.  
1963

Journal

32.

12 July Barrow, Alaska

Weather overcast with a strong (10-20 mph) north-n-e wind. In the morning, I went to beach ridge + the area south of north salt lagoon - where I found one juv. out with young + discovered that another had been destroyed + at least one adult shot. A flock of redpolls was encountered; 2 ♀♀ were collected. No petrels were noted in this direction.

In the afternoon, I took soil samples at the insect plot + went thru Voth area + the high country to the south. <sup>(3)</sup>Two petrel nests were intact, one more had hatched - No 4 + 5 ch were nearly. Two more broods were encountered in the afternoon - travel. One flying immature semipalm was collected - N + E (Voth) area - both adults overparent.

In evening, specimens + some samples were processed. Weather remained misty.

13 July Barrow, Alaska

Stevens + I left for Ikroavik at 0815 + arrived there at 0900 - All day was spent in census the plot - we returned to AB. late in afternoon



Holmes, R.  
1963

## Journal

33

13 July Barrow, Alaska

Weather today was variable - from sunny & almost warm to cold & windy with sleet in the air.

Only 2 pectoral nests were located - in general there was very little activity. - many of the nests, however, have not yet hatched.

Muelle & Child - returned from ~~Barrow~~ <sup>Barrow Island</sup> in early evening.

14 July Barrow, Alaska

Weather partly sunny - but fog bank over the ocean which was constantly threatening to move in - but never did.

Completed beach ridge plot in morning & also checked several gull nests out from Elson - these are all nearly gone hatching.

In afternoon - went to point east took good photos - vacuum samples. Tundra is still quite wet with all the rains we have had & good level is high.

15 July Barrow, Alaska

Worked on the job all morning, down specimens from Barrow & writing notes. In afternoon, went to beach ridge - gasline ridge, meadow lakes, & beach ridge census plot. Very little bird activity. Weather was windy (10-20 mph) & went for most of the time.



Holmes, R.  
1963

# Journal

34

16 July Barrow, Alaska

Weather today was nasty! In early morning, it began to rain + the water froze on the grass + ground. Childs reported that at 0530 - the ground was nearly a solid sheet of ice - by 0800, some had started to melt but the ice still crumbled when walking on the tundra. During the morning an icy rain fell but by early afternoon, it warmed up, + the ice melted - but it kept raining all evening. Along with this - was a strong 10-15 mph northerly wind.

In the morning I went to broad ridge + vicinity - checked several nests on north end / broad ridge census plot + then came by + picked up Childs at Britton Manor. - The birds show no obvious effect / the extreme weather - except that the birds are brooding young + setting tightly - eggs. There may be some effect on adult insect behavior - but nothing could be detected today.

In the afternoon - I took Childs



Holmes, R.  
1963

# Journal

35.

16 July Barrow, Alaska

back to his warpage - head up &  
then went to the meat plot when  
I took soil & vacuum samples. The  
latter were taken to document the  
effect on the adult weath was  
the wet cold weather - they were  
definitely fewer - & no typical  
adults were seen during the day's  
field work.

In the afternoon's work, very few  
birds were located - seen. I picture  
2 ♂ PS, 2 RB & 1 RW. No brood-  
were seen of any species. They must  
be sitting tight.

17 July Barrow, Alaska

I went to Ikroavik & censused the plot.  
Several small groups of ♂ & ♀ picture  
were present as were flocks of ♂ & ♀  
phalaropes. Most of the picture nests  
had not yet hatched. One flock/  
redoubt seen north of footprint lake.  
Long-tailed jaegers were abundant.  
Weather was overcast with a  
light NE wind (~5 mph). - mites were  
in evidence - as were adult typical.  
In late afternoon, the wind increased  
but the day was still pleasant.





RTHolmes  
1963

Journal

36.

18 July Barrow, Alaska

In the morning, I went to the beach ridge plot & censused. Most of the nests here have hatched - exc. for 1 petrel, 1 redpoll & 1 jaeger plover. Several in attached petrels - both ♂ & ♀ were present.

In afternoon, I went to insect plots & took pond - vacuum & obsv. Samples - R #5 / adult insect has decreased markedly in the last 7 days.

In evening specimens were processed & notes written. Weather today was overcast & misty in the morning - with light overcast in afternoon. Wind 5-10 mph from NW.

19 July Barrow, Alaska

Most of morning was cloudy during the morning - saw several small flock / ♂ PS, ♀ PS & ♂ & ♀ PI - very few redpolls or RB chick. Several broods of petrels were noticed however. Weather was overcast - but the insects were out - including - few mosquitoes. By afternoon, it became clear & I went to Voth floyl & on toward Denali And - again petrels were the dominant bird seen. In the



Holmes  
1963

# Journal

37.

19 July Barrow, Alaska

evening - I went to beach ridge & collected several Baird Saps - several are now showing good sign / full plumage; - is molt is proceeding. Weather remains clear & generally calm. The breeze shifted to east (from west) during the evenings & large flocks / flocks began moving toward the west.

20 July Barrow, Alaska

Childs, Stevens, & I went to Ikroavik via AACs & Gasline ridge - to check birdlines. Several potential flocks & broods seen along the way - On the plot - more potential were observed & 3 new nests & 2 new broods were located. The seabird activity was low.

Weather was foggy in early morning, clearing by 10-1030. & being clear for the remainder of the day. The eclipse of the sun could be seen through the fog between 0500 & 1000.

In the evening - specimens were processed & notes written [Sooty Terns were taken on the return trip from Ikroavik]. Several lemmings & good lemming sign was in evidence on the plot. Several point L.E. saiga rows were also seen.



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Journal

21 July Barrow, Alaska

Processed soil samples in the morning & then went to Wohlsehly Slough & beach ridge in afternoon - where a census was taken on the plot. Several flock of redpolls & specters were noted.

Weather overcast & windy (10-15 mph from east). The sun broke through occasionally.

22 July Barrow, Alaska

In morning, I hunted for jaegers ridge to mouth of Wohlsehly Slough & along E18-19 on toward Cape York Slough. Several redpolls & then chick & some flock of specters were noted.

In afternoon, insect sampling was done at the insect plots - samples of both birds & insects were processed in early evening. Then went to Child's Slough - hummings!

Weather overcast & foggy - most of the day - the visibility was less than 1 mile.

23 July Barrow, Alaska

Went to Skroovik & worked the plot.

Some pepters had hatched; some had not. In general there was little



RT. Holmes  
1963

# Journal

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23 July Barrow, Alaska

activity. I took some pictures of adult redthroats near 10.4.

Weather was overcast, light easterly breeze - drizzle most of day. Some mosquitoes +, maybe weevils - bothersome around mid day. Weather generally warm today.

24 July Barrow, Alaska

After waiting until 0830 to get a wheel, I went out to gasoline ridge + the east to the mouth of Oblique Slough - north to Wobleslag + the boat to camp via central marsh + north beach ridge. Dug 1 flock of birds - 3RB - was seen - no pictures + group - but occasional song & ♀ + ♂. Weather this a.m. was partly overcast - with some sun.

In afternoon - I went to foot soil samples. Weather from 1200 - 1800 was thick fog - visibility limited to 10 yds or less. In the evening - it cleared + was sunny + windless.

25 July

I went to Ikroavik in the morning + walked the plat, checking nesting, etc. Two new nests were found. Several





RTT:hmw

1963

# Journal

90.

25 July Barrow, Alaska

Small groups / pairs of putnoks + redbocks were noticed. In afternoon, I went to garden ridge + vicinity - saw 80 putnoks but not many.

Weather was calm in morning + partly sunny - but wind (10-15 mph) in afternoon - with increasing cloudiness. By late evening it was heavy overcast + a light rain fell which went - sporadically through the night. About 10 pm I walked out through the drum area + collected 1 Imm SB + 1 Ad BS. A flock of 8 ♀ putnoks was observed.

26 July Barrow, Alaska

Went to Bevil Ridge - north meadow lake - sat to collect gulls - east of the mound + up to wobbles + return across central marsh. Several broods of putnoks seen - in all stages from post-hatching to almost flying. Two groups of flying redbock chicks + one adult in also found. In addition small flocks of putnoks, redbocks were present. All feeding was being done on upland areas - with occasional traverses through marsh ground.



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Journal

31

26 July Barrow, Alaska

Frog geyser & 1 chick were seen south  
of Wood Schlegel. Other frog  
activity was not much in  
evidence.

In afternoon, 2 toad pond, &  
various samples. In evening, stomachs  
were analyzed.

Weather was calm but overcast &  
raining in morning. Became  
windy in afternoon. By late  
evening it was beginning to sprinkle  
again.

27 July Barrow, Alaska

Morning spent in lab writing notes &  
processing specimens. Weather: light  
rain & southerly breeze.

The next, weather continued through the  
day & night - with considerable amount  
of rain falling. More lab work com-  
plete during the afternoon & evening.

28 July Barrow, Alaska

Left at 0810 with 2 men for Tundra Plant  
Management & went to Ikroavik - where  
we walked the plot for 2 hours. Only  
two pecked nests remain - the  
others have been checked & the birds  
have for the most part departed.



Holmes  
1963

Journal

42.

28 July Barrow, Alaska

A few petrels & a few gulls & redpolls were seen on the plot & on the trap down & back. Very little activity - some weather was foul - moderate heavy rain & 10-15 mph wind from the west.

In afternoon & evening lab work was done. The rain kept on through early evening - but subsided at bedtime. The wind blew all night & it dropped below freezing early next morning.

29 July Barrow, Alaska

Weather - snow covering ground in early morning but mostly gone by 0730. Cold NW wind & snowflakes all morning - decreasing in afternoon. Wind was from NW all day - some light rain in the evening.

I went to Inuvik Ave & took full load of samples - returned to lab at 1102 - Samples were processed then 1438 & then I drove to B.R. - Brant Pt. - & back to Central Base. Very few samples were seen in either the morning or afternoon travel. - 19 + 15 PS, 4 Ad RB, 2 Ad RB + 1 Im BS. It appears that many of the birds - at least those breeds - have departed.



Holmes, R.  
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Journal

43

27 July Barrow, Alaska

The absence of young at this time may indicate that not so many have survived or atleast that those born late in the season have not survived while those hatched in early July are able to fly now & could have moved off.

Predation has presumably been heavy. Dr. P. Johnson reported two new cases yesterday - one of a P.T. chasing a group of longspurs for a minute until the longspurs took refuge among the people working on the EIS - long plant ecology plot. The jaeger then flew overhead & took off in another direction. The other was a young shore-bird chick (sp?) being taken by the jaeger in the same vicinity.

Also - he reports that one golden plover young was lagging behind the rest of the brood, and the adult would keep running back & forward try to keep it moving. Finally the chick collapsed & would not move - appeared exhausted - maybe out of food - ??? -

This insect situation for you is critical. Since not only are the chironomids inaccessible but now the heavy rains have drastically reduced the flies.





Holmes  
1963

# Journal

44

30 July BARROW, ALASKA TO INUVIK, N.W.T. CANADA.

Little bird life seen because of high flying altitude + heavy cloud cover. Depart Barrow at 1600 + arrived Inuvik at 1930. (Then 2 hrs added for time change)

Inuvik is on the east side of the delta of the Mackenzie ~~delta~~ river. This is spruce-moose country characterized by scattered groves of black spruce (Picea mariana) - up to 20-30' in height. There is an understory of Betula glandulosa (2-3' in height + lower), Vaccinium (both sambucifolium + blueberry), Ledum, Salix sp. + Narcissus forks. The lichen Cladonia is very common throughout the country - + is easily seen from the air. Epilobium angustifolium + Senecio conjugatus were along the roads in bloom.

Birds seen - Redpoll, Tree + white-cr. Sparrow, Hairy Blackbird, all in the spruce area - white Ravens, Glaucous Gulls (+ a dark type gull - which may have been Short-billed Gull - Larus caninus) were in the town + along the river channel.

31<sup>st</sup> July Inuvik to Sachs Harbor, N.W.T. Canada

Left Inuvik at ~ 1030 + arrived Sachs at 1400 - after a flight above the clouds. We carried the Eskimo leader of the village - the flyer - Fred Carpenter.



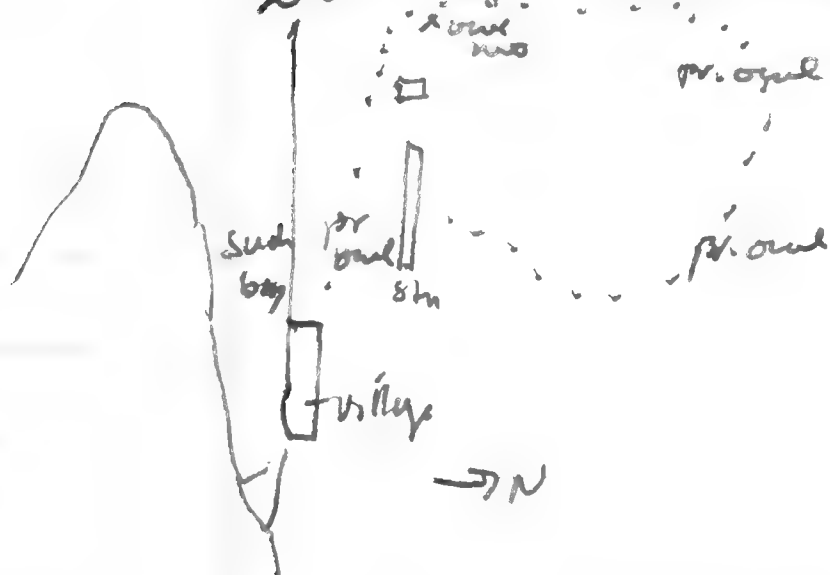
Holmes, R.  
1963

# Journal

45.

31 July Socha Harbor Banks Island, NWT, Canada

Upon arrival we were met by Mr Eric  
Ransom, from the Division of Transport, Canadian Government  
who was heading a crew to build  
the landing strip at Socha. After dinner  
at the construction camp, I walked several  
miles through the tundra to the north &  
west of the airstrip & then down to the village.



Two major tundra  
habitats here - the upland  
situation on the ridge  
tips & slopes - which are  
characterized by small  
(6-12") polygons - mostly  
covered with soil (or mud

today - due to much rain). The dominant vegetation  
here is *Dryas* - which forms small tussocks.  
Lemmus sign was evident - both many old  
burrows & runways - but no fresh tracks. In  
the area I would expect to find *Dicrostonyx*.  
In the lowland area near the lake & the  
mouth of camp there are wet marsh lands  
characterized by *Eriophorum* & *Carex*. The  
habitat type is not too common - probably  
comprising no more than 30% of the area  
within 5 miles of Socha Harbor. Lemmus  
sign here was good - but both fresh & old  
evidence of *Peromyscus*. Four pairs of owls were



Holmes  
1963

Journal

46

31 July Sachs Harbor, Banks Island, NWT, Canada  
seen - 1 with a nest & 1 1/2 grown chicks (1 in  
nest & 1 in 4 according to the people at Sachs  
& the mainland - pectorals & white-rumps (1) were  
seen, as well as red phalaropes & Golden  
Plovers. The Black-bellied Plover occurred but  
not alone was in the uplands. On the  
coastal bluffs along the water edge - Raven  
& Glaucous gulls were relatively comm.

Jugger was comm - all three  
species were seen - Long-tails were relatively  
comm. Parakeets - most abundant - but  
there was no evidence of breeding & only  
one parasitic was noted.

Birds seen at Sachs between 1945 - 1950.

Pomarine Jaeger - 15

Parasitic " - 1

Long-tailed " - 6

Pectoral Sdg - 6 Imm, 2 Ad ♀

White-rump Sdg - 1

Red Phalarope - 2 ♀, 10+ Imm

Leptland Longspoon - 30+

Sooty Gull - seen near large lakes - N. / auriferous - breeds

Arctic Tern - " " " " " " " "

Glaucous Gull - 10+

Rare - 1?

S. Owl - 8+

Golden Plover - 2 pr

Horned Lark - 1 Ad & 2 Im

Black-bellied Plover - 10+



Holmes  
1963

# Journal

47.

1 August. Sachs Harbor → Bernard River, Banks Island, Canada

After spending the night at Sachs (became a low clouds, fog, rain & 10-15 mph westerly breeze - which has been the weather here since the 25th), we left this a.m. at 0800 & flew west to Cape Kallit & then north along the coast (the country near the mouth of the Kallit River was very marshy & Eriophorum blossoms were widespread - it thus should be good fuscinus habitat). On the trip north - we were in fog most of the time but Glaucous Gulls, & Arctic Skuas & Sabine Gulls were frequently seen along the coastal sandbars & lagoons. Herring / Snow Geese - 3 to 40 birds were seen in the ponds adjacent to the coast. Upon coming to the Bernard River where it empties into the Beaufort Sea near the NW corner of the island, we turned east & followed it for twenty miles ± until we reached the camp (Wm J. Maher & his four assistants - Steve Maclean & Rich Tenora). The camp is located on the north bank of the river, at a point near the junction of the Bernard & "our" river.

After settling, Doug Keiff, Bill & I walked north to the foothills (to look over the Eriophorum flower covered terraces & meadow lands - where a C. fuscinus had previously nested).





Holmes,  
1963

# Journal

48.

1 August Bernard River, Banks Island, Canada

Saw in this area several ~~immature~~ <sup>adult</sup> Calcarinus lagomus, Squatula squatarola, + Stercorarius longicaudus. On the return trip down from the ~~hill~~ hill + on the stream bed east of camp - 1 adult sandpiper was observed feeding among the gravel.

In the afternoon, Maclean + I checked an extensive Eriophorum + Carex marsh south of the Bernard River & SW of camp. The area is about 4 x 3 miles + consists of marshy ground + scattered lakes + ponds. The only birds seen were Arenaria interpres (1 Ad + 1 flying imm), Phalaropus fulicarius (2 ♂ + 3 flying immatures), Ad., Larus sabini + L. lagopus. This area was inaccessible during most of June + early July + therefore was not visited during this time by the crew - however by its appearance, it should be good fuscicollis habitat.

In the evening, Maclean + I took a walk north of camp through the hills + several valleys where lakes + marshes were plentiful. Birds seen included <sup>8-10 Ad</sup> Squatula, Pluvialis (1 Ad + 1 2-3 day old chick), Calcarinus, 2 or 3 Gavia arctica on two separate lakes, about 1/6 Branta nigricans, an adult Tryngites subruficollis with 2 flying immatures (all collected), 6-8 Stercorarius longicaudus, 10 Larus lagopus + 20-24 Lagopus mutus, 3 Phalaropus.



Holmes,  
1963

# Journal

49.

1 August Bernard River, Banks Island, Canada

We returned to camp at 0100. Weather today has been variable - rain shower one minute, sunny, warm + mosquito on the next. In general the weather was 40-45°F, dropping to 30° during the night.

HABITAT: Upland - hill tops + slopes - quite barren with small muddy polygons + scattered Dryas tussocks. Occasionally small swales are found with ERIPHYUM being the most conspicuous plants. In this habitat - little is found - but occasional Black-bellied Plover + Horned Larks (Males). The lower hill sides start getting small Eriophorum + Dryas tussock + then gradually into the ERIPHYUM + the marshes. Here with scattered grass + sedge etc. In lower slope - Buff-breasted Sandpiper, Sandpiper, Black-bellied Plover, Longspur, Horned Lark, Rock Ptarmigan - Golden Plover <sup>DAVID'S</sup>

Low marshes - wet, ponds, lakes, - ERIPHYUM + Carex - wet small mosses + Dryas + numerous (mosses) (red flora - small variety). White-rumped Sandpiper, Phalaropes, Longspur, Semi-palm. Sandpiper, King Eiders (WIM - although 3 broods / Kings were seen in the open areas today).



1 August Bernard River, Banks Island, ~~Alaska~~ Canada

The habitat separation is crude but in general it seems to hold. The country is rich in floral variety, but in general the vegetation is not lush, that is the plants are not tall nor dense, except in the very wet marshes.

2 August Bernard River + northern Banks Island, Canada

Weather overcast with rain showers. Jaaps + I walked southeast for camp across "our" River through the marsh area in the wedge between our + Bernard Rivers - where we saw 2 broods (1 of 6, 1 of 3 young, each accompanied by an adult ♀), occasional Longspurs, Long-billed Jaegers, glaucous gulls, Sabine gulls. On the south side of the Bernard a small (100 acres) marsh was located - which had several pools + lakes + then a sweeping hillside up to Muller's Knob - apparently this was the country Rave had covered in his walk here + presumably there are the ponds where he had collected the white-rumps. The habitat was the usual Carex-Eriophorum Marsh. Black-bellied Plover + Golden Plover, 2 immature Red phalarope + Sabine gulls were also seen here. On one of the drier slopes a group of 2 Ad + 3 Imm Sanderling was found. 1 Imm well.



Holmes  
1963

Journal

51.

2 Aug Bernard River + northern Bant Island, Canada

Species list for the Bernard River camp of WJH  
as seen by RTH - 1-2 August.

Gavia arctica - 2 or

Branta nigricans - fine 1/2

Chen hyperborea - flock 130+

Somateria spectabilis - seen 7 + 1

Lagopus lagopus, 1 ♂ + (2 Ad + 4 Y)

Lagopus mutus - 2 ♀, 2 ♂

Grus canadensis - 1

Pluvialis dominica - 2 Pr. + broods

Squatarola squatarola - common

Arenaria interpres - (1 Ad + 1 Y) + 1 I

Troglodytes subruficollis (1 Ad + 2 I) (2 Ad + 3 I)

Crocecinna alba - 1 Ad, 2 Ad + 3 I

Phalaropus fulicarius - common

Stercorarius parasiticus - 1

" longicaudus - 1 Ad

Larus hyperboreus - 2

Xema sabini - common

Eremophila alpestris - 1 Ad, 1 I

Calcarius lapponicus - common

- other species - had breed + already departed. - see from  
discussion of habitat groupings.

After returning from the walk across the  
wide gravel bar and after lunch, we  
departed on a three hour recon of northern  
Bant Island (after digging out 4.5 out of wet sand!).





Holmes, R.  
1963

# Journal

52.

2 August Bernard River to northern Banks Island, Canada

For route / trip see map on next page. We departed  
Maker's camp at 1500, flew north to Cape McClure - saw  
following

1 musk-ox (pick)

1 " "

Flock of 4 ptarmigan

2 Arctic fox

2 Ptarmigan

1 group of 7 musk-ox (pick)

1 Arctic Hare (Lepus arcticus)

1 Snowy owl

3 Sandhill Cranes

} Small groups  
of 2-8  
Caribou  
seen here  
- also 1  
wolf.

Coast from Cape McClure + Crozier to Castel Bay

Glaucous gulls in air & on cliffs

- no other cliff birds

Castel Bay - Thomson River to junction of Muskox River

1 swan - Olor columbianus - not

prev. recorded this far north in Banks!

Glaucous gulls

Sabine Gulls

Sandhill Crane - 4

Snow Geese - 20

- did not see large killing ground when

was supposed to be at this junction

North to Mercy Bay - over fallen bluffs - along

coast to east; nearly to Parker Point -

only Glaucous Gulls seen.



Holmes, R.  
1963

Journal

53.

2 August Bernard River to Northern Banks Island, Canada

Coast inland parallel to Prince of Wales Strait (could see Victoria Island) to large lakes where a few small groups of Snow Geese were noted & thence west to Thomas River & finally to camp. Along the Thomas River; more Musk ox (1 group 14 ad + 24, 1 + 16 animals, + 1 of ~10) were seen. The musk ox would run as the plane approached but <sup>one</sup> of us creaked about & came running again, & the group of 7 formed the classic ring with 2 facing outward & the cows? & cows - the center. - These are massive animals but yet they could run quite fast.

We returned to camp at 1800, had dinner & spent the evening writing notes, stacking.

3 August Bernard River to Barrow, Alaska

Left Maher's camp at 1045 with Dr & Mrs. There, Joop Koef & the 2 pilots. Murphy & Alefr <sup>& Mrs</sup> & band. Flew directly towards Sachs Harbor (see map). The country to the east - i.e. headwaters of Bernard River looked marshy - many lakes & ponds could be seen. Also the delta waters of Big River & Starbuck River were of a marshy - Eriophorum - Carex nature - as judged from the air - ~~but~~ all these areas should be <sup>good</sup> ~~good~~ Sandpiper.



Holmes  
1963

## Journal

34

3 August Bernard River, Banks Is., Canada to Barrow, Alaska  
habitat. Other marsh swales - some  
being several square miles in area were  
also seen along this route, but they <sup>would be</sup> ~~were~~  
inaccessible by plane.

The country to the north of the Bernard  
which was covered yesterday was the  
same as described for the Moku camp  
area - large hills with rather barren  
sparsely vegetated tops & the wet  
tundra - grassy marshes - the valleys.  
It appeared that the northern area  
may be 70-75% upland country.  
with the remaining part in lower  
slopes & marshes - which south of  
Bernard River the country was about  
45-50% upland - the remainder being  
marshy. The unknown area which  
would still be well watered  
is the headwaters country of the Bernard.

We arrived at Sachs Harbor, picked  
up their mail & flew out Inuvik. Here  
we ate, checked the ships & left  
for Barrow at 1800 (1600 Barrow time) &  
after flying above the clouds arrived  
at Barrow at 2000.



Holmes, R  
1963

## Journal

55,

4 Aug. Barrow, Alaska

Morning spent in lab catching up on field notes + other lab work. In afternoon, a full set of insect samples was taken. In travelling to + from Voth area - 1 ♀ PS + 2 non flying chick, 1 ♀ PS, 1 Juv. RP, 1 2 Ad RB, sev PT were noted - some 1 there were collected. Longspurs were flocking - several groups / 15-30 were seen.

Weather overcast, fog moving in + out - 5-10 mph wind from NE - in evening - with some snow flurries. Evening - lab work on birds + insect samples.

Weather - last 4 days has been generally foggy + raining.

5 Aug Barrow, Alaska

In morning, I drove south via meadow lake - gasoline rdg - east to fertilizer plots + north to Wohlsehly Floyd - returning across Central marsh. No shorebirds were seen until the first plot area - 1 Thru 3 Ad RB, 1 Ad + 2 I. RB, 3 RB Ad, 1 I PS, 1 J + 1 ♀ PS, 1 ♀ PS + 3 I RP, sev Ad. GP. In So. C.M. - 1 ♀ PS + 1 J, 1 RB, 4 Ad. RB + So. of B.R. - 1 RB, + 3 I RP + 1 PS. - Some 1 there were collected - see catalog.

In afternoon - to Voth area + points north - At gravel ponds in Britton's Area - 12 Ad + 2 I RB - 2 I PS 3 Ad + 4 I RT, 1 I SP, HI WS. 19r. 12 Ad RB + 14





Holmes  
1963

Journal

36.

5 Aug Barrow, Alaska

4 adults RB were noted in the polygamine  
are not 100th. Also - flock 125 RP -

In general bird activity was light -  
rebock seemed to be moving &  
were mostly in upland - polygamine -  
flocks - except the one big flock on  
Grand ponds. There was a noticeable  
absence of adult pecters. There were  
were with no flying young. Also -  
a noticeable absence of young fly  
pecters & rebocks - maybe some of  
these have left already ??

Weather today was overcast  
with a 5-10 mph west wind.

6 Aug. Barrow, Alaska

John Johnson, Steve Holland & I went to Horroville  
today & walked the census plot. Only  
3 ~~juv~~ imm PS & sev. ad. RB (1 Ad + 3 J.) were  
seen on the plot. 2 I RB were obs in  
Footprint Lake. Imm RP were  
relatively common on the plot & -  
Footprint Lake. Jayas (Pom.) were  
hunting & 3 Snowy Owls were seen  
near the lake.

Weather was overcast - 5-15 mph wind  
SE + SW. light rain in afternoon - storm in evening  
Afternoon & evening in lab - robes & specimens.



Holmes, R.  
1963

# Journal

57

7 Aug Barrow, Alaska

Went to Beach ridge + central marsh in morning -  
saw weasel in deep mud / The marsh +  
worked back. Several adult & PS + Imm PS  
seen along the marsh edge. In afternoon  
evening, I processed specimens + worked  
on writings.

Weather - overcast + rain Throughout  
the day. Light hours for south + west.

8 Aug Barrow, Alaska

Took Ed Cutler (marine biologist) + went to Oolypuk  
slough - saw scattered velvet, petrels  
+ small gulls / Redpolls. In general  
little bird activity. Sighted a 5-foot  
<sup>large</sup> bearded seal - Erysmanus barbatus - 300206  
north of oolypuk slough - in a marshy  
road. Picture of it was taken +  
then in the afternoon, Charles + I returned  
+ brought the animal back after shot  
it. The rest of the afternoon  
was spent in skinning + skeletonizing  
In evening, specimens were processed.

Weather - sunny during most of  
day - cool.

9 Aug Barrow, Alaska

In morning - drove to beach ridge, north  
central marsh - to east of BR + back to magnet  
station. Shot 1 BR + PS - east of BR. Taped and



Holmes  
1963

## Journal

38

9 Aug Barrow, Alaska

flying in the same area. Phalaropes quite common in the lake & ponds.

In afternoon, took insect samples in Voth area & made several loops around this tundra - saw 1 flared / 1 Ad RB, & 3 Im PS. At Br Hn's line - Pond - <sup>story</sup> 12 Ad + 2 Im RB + 2 Im PS. Weather overcast - snow flurries - cold NW wind - not wind.

10 Aug Barrow, Alaska

In morning, specimens & insect samples were processed. In afternoon, I drove south along ~~east~~ west side of meadow lake (4 Ad RB), south of gulch (2 I + 1 Ad RB, 2 Ad RB, 2 Ad RB, 3 Im PS) & then east toward Turt Plate across tundra country (flared 1 6 Ad RB), the north to south end of central marsh (3 separate Im PS + brood of spectacled Eiders) & the pond to SW. Pectrobs were most noticeably missing again. RB Im are not very common.

Weather - partly sunny - partly overcast. 10-15 mph west wind.

11 Aug BARROW, ALASKA

Weather was overcast - with a cool light west wind (3-5 mph). Insect samples were processed in the morning & some thesis work was accomplished in the afternoon & evening.



Holmes  
1963

# Journal

59.

12 Aug Barrow, Alaska

Morning - lab doing paperwork. In afternoon Johnson & I went to Oolupik Slough M<sup>2</sup> gasline ridge & fertilizer plots. Saw following birds - BR → 960 mi: 1 Ad RB, 1 PJ with GP chick, 1 Ad. RB. So Scaup: 2 Im PJ + 1 Ad, 1 RB, 1 RB, 2 PRB, 1 RB, 2 RB, 1 Im PS. So + west 1 Int plots: 4 PRB, 3 Ad RB, 1 Ad RB. E 1 Int. plot: 2 RB, 1 RB, 2 I PS, 32.3 Dow., 1 S.O., 2 Ad RB (+ 1 Im?) + So CM - 1 PS-I + 1 Ad RB.

Redpolls were in small flocks & ~~very few~~<sup>70</sup> immatures were seen. Pectoral Gulls were absent & only a few immatures were seen, certainly less than would be expected after the nesting density two years.

The tundra is extremely wet & even the upland areas have standing water or at least are saturated with water. - So no matter where the birds feed - they are working in moist ground.

Weather today was partly clear in the morning but foggy in the afternoon. Very still evening - makes the day seem warm - even though the temp was in the 30's. Paul Hurd arrived today & we fueled in the evening.





Holmes, R.  
1963

## Journal

60.

13 Aug. BARROW, ALASKA

In morning, Hurd & I went out to beach & gasline ridges (IPS-E, 7 ± PS) & then went to the insect plots (few Imm GP - no pupae seen) - where we looked over the Sampling Program & sites & discussed insect matters. We returned via Brooks' Arm where 2 Imm RB & 2-3 Ads + RP were in the gravel area. Bird activity was exceedingly low.

In afternoon, specimens were processed & paper work completed. Weather today was overcast - light was dim - 35-40°F - Apparently freezing temp. Lost my keys.

14 Aug BARROW, ALASKA

Morning spent in lab working on data & talking with Hurd & Maher (who arrived back from Banks last night).

After lunch, Hurd & I went to insect plots, where I took soil & pond samples & where Hurd did some surface checks (where none were seen). He feels the area is rich - certainly more so than most ridges. - Several Longspurs, 1 GP, sev Glaucous Gulls, & Pom Jaeger - we seen - no shrike. Overcast - rain all day - west wind 5-15 mph - nasty.

200

Holmes, R.  
1963

# Journal

61.

14 Aug Barrow, Alaska

In the evening, I talked with Dr. S. C. Kendrigh from Univ. of Illinois + one of his students Bill <sup>Brooks</sup> ~~Green~~ (B). They are here to collect snow buntings + redpolls for studies on energy budget (The above mentioned student is to work on redpolls - he has just completed a MA on shorebird migration through Illinois). He also has students working on energy metabolism (in Passer domesticus) + of incubating (zebra finches).

15 Aug Barrow, Alaska

Morning - lab working on samples. I afternoon - Kendrigh, Groden + I went to the area south of Wohlseh Slough - via bear ridge route + back by meadow lakes.

To Wohl. Sl. - no shorebirds seen - etc  
R on fresh lake. - 1 P.T. & upland count  
South of the slough - 3 IPS, 1 RB Ad, 6 RB Ad,  
7 RB Ad, 1 RB, 3 IPS, 1 IPS, 1 nm-fly -  
Go chick, 1 Ad GP + 4 flying chicks, sev Pom  
Jaeger + 1 Parasitic Jaeger, 2 S.O. & so.  
CM - 8 IPS, 6 Ad + 1 I RB, 1 I RB,  
Near the meadow lakes - 3 RB, 7 IPS, 15  
L.b. Dove - 1 ♀ + 5 imm. Spectacled Eider -  
several Pom Jaegers + Golden Plover.



Holmes  
1963

Journal

62

15 July Barrow, Alaska

Weather today was overcast - with light drizzle & scattered showers all through the day. Wind was light (4 ft from ground) - there was no wind. Temp must have been in high 40's - Chironomids & Mosquitoes were present in low numbers.

16 July Barrow, Alaska

Morning spent in lab processing insect samples. In afternoon, took some field notes - Near the Meadow Lake 1 RB, 2 IGB, 3 Ad RB, 6 Ad RB + 1 Im, 3  $\pm$  OP, 1 IPS. S. 1 further note - 8 IGB, 1 Im RB, 2 IPS, 1 PS-1, 2 Ad RB. Several birds were collected.

Weather overcast - 10-15 mph east wind. - 30-40°F.

17 July Barrow, Alaska

Day spent in lab working on specimens & insect vacuum samples. Heard left at 8:30 this evening - during the day - we had several good conversations via radio here.

Weather: strong east wind & snowy in early morning - turning to rain during remainder of day. Wind kept up at 20-35 mph - & ground was a very nasty & disagreeable day.



Holmes, R.  
1963

Journal

63.

18 Aug. Barrow, Alaska

Morning in lab working on notes, etc.  
In afternoon - drove to gullery ridge  
(1 flut 13 Ad RB - near N.M. L.) + then south of  
the ridge (3 <sup>Ad RB</sup> ~~Ad RB~~). Several golden plover  
immatures were seen. Also, several  
Pomarine jaegers - Ad + imm; were also  
noted. 1 imm. Spotted Sandpiper -  
seen along fuel lolo. - as well as seen  
in WS + SP.

Weather: Overcast - with 15-30 mph  
west wind. + 29-31°F. - Weather may  
be driving birds out.

19 Aug. Barrow, Alaska

Morning + early afternoon in lab working on  
thesis + writing letters. Finally a weasel  
was obtained in mid-afternoon + I took  
an insect sample at the insect plots. No  
shorebirds were seen on the tundra - while  
only 2 Ad RB + 3 imm WS-SP? - were on  
Britton's Gravel Pond.

Weather was overcast - cold (freezing  
last night), temp remaining near 32°F  
during most of the day. No wind - a  
light sand breeze from SE.

20 Aug. Barrow, Alaska

In morning, I drove south past the meadow  
lakes (flut + 8 Ad RB, 1 I GP, 1 I. RB), then across





Holmes, T.  
1963

## Journal

64.

20 Aug Barrow, Alaska

gasline rdg. (3 Ad. RB) - To Oohyal slough area where nothing was seen + then West town gasline (inland from Oohyal) - where a flock of 6 LB Row, 2 IRB, 1 PS-I, + 1 WSI was seen.

Bird activity was very poor + birds were hard to locate, especially pectorals.

Weather overcast - very light snow.

21 Aug Barrow, Alaska

Stayed in lab all day - working on tail feather science conference + finishing specimens. Weather was partly clear - but a strong east wind was blowing during most of day.

22 Aug Barrow, Alaska

Weather overcast all morning with wind from east at 20-30 mph.

In afternoon, it started to rain + kept it up until early evening - also with strong east wind. By 2200 - the wind was shifting to the south + the sky was partly clear.

Worked in lab in a.m. + went to field in afternoon + then to the fertility plots in late evening.

In afternoon - went to beach ridge



Holmes, R.  
1963

Journal

65.

22 Aug Barrow, Alaska

northern part of Central marsh (150+ L.b.  
Dowitchers - 2  $\pm$  PS) - north + east of BR -  
in polygonal + pond country (6 Ad RB,  
1 Ad RB) + Den return. Bird activity,  
especially Pectoral - was very poor.  
checked Br. H. B. ground pond - 1 Ad. 12 RB + RP

In evening - scattered groups  
Dowitchers + Pectoral - all immatures as  
far as could be determined - were  
seen in the marshy areas between  
Central marsh + fertilizer plots.

23 Aug Barrow, Alaska

Strong gale blowing from west - wind gust  
to 40 mph - all morning + early  
afternoon. Overcast in a.m. - clear +  
sunny - afternoon.

Chick left via C-119 at 1230. Lot  
work was done all morning. In the  
afternoon - the wind was blowing lightly  
from the west - + I went to beach  
ridge - near the gasline + the across  
the north end of Central marsh (100+ Dowitchers,  
6-8 Imm Pectorals) across the b.r. near  
No. end of census plot (2 Pm. J. + 1 Imm. J.).  
At feed table - flock of 8 Imm RB, 5 Ad. T. WS  
+ 3-400 Imm Red Phalaropes. 3 RB + 1 WS  
collected. In evening, specimens prepared +  
paper work done.



Holmes, T.  
1963

## Journal

66.

24 Aug Barrow, Alaska

Worked in lab all morning - School arrived at 1130. In the afternoon - we went out & took the LAST insect sample. Weather was clear, sunny - with a light (5 mph) - SW. wind. - very pleasant. In evening - samples were processed. Weather remained good - wind calmed.

25 Aug Barrow, Alaska

Morning spent in finishing samples. In afternoon, I went to Oohyal Flucht & checked shorebirds - 1 ~~TP~~ Ad, 3 Im, 6 Ad KB, 2 I PS, 2 Ad KB + 1 I. PS. - Weather - cold & nasty. Overcast & rain all day - 20-30 mph NE wind. In late afternoon & evening - packing was done.

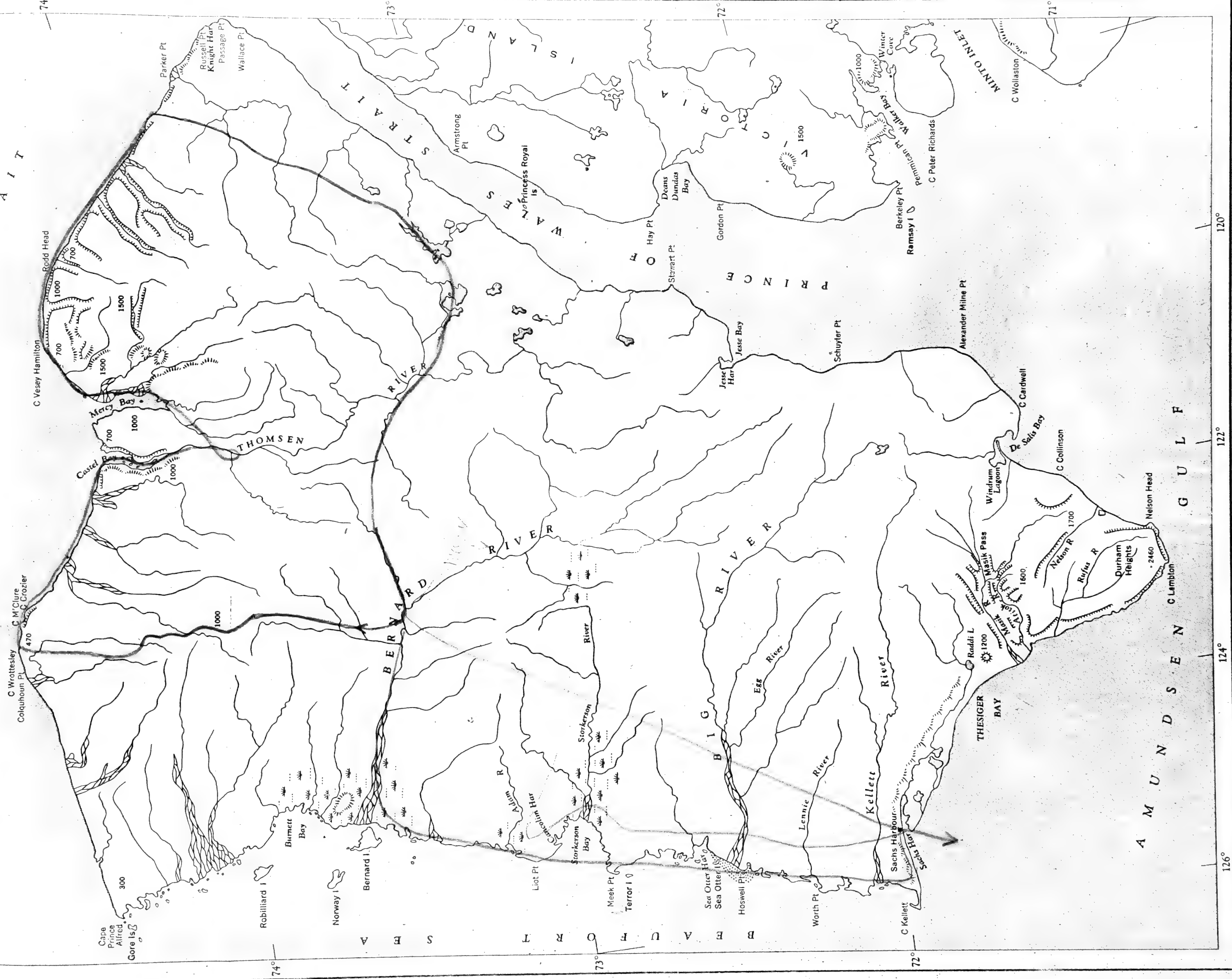
26 Aug Barrow, Alaska

Quiet try to relax in the morning & the packing & writing progress reports all day. Suggested to leave a RYD - in late afternoon. Weather - overcast - & heavy rain - with wind.

FINIS!



M · C L U R E  
S T R A I T  
R. T. Holmes  
1-3 August 1963







Holmes, R.  
1963

# SOP Insect Sampling

1 June Barrow, Alaska

SOD SAMPLE #1 - taken in poly m - 16m trap.  
30' south of Point 4 - near insect proof  
upland sampling. - 5.  $\frac{1}{10}$  m<sup>2</sup> plot  
taken - soil about 2' deep - all in  
simil. habitat. mostly *Zoa* - covered  
soil, with some *Caecilia* + *Arctophila*.

10 June - Same area used + same sample  
taken. SOD #2

18 June " " SOD #3

22 June " " #4

26 June " " #5

30 June " " #6

4 July " " #7

8 July " " #8



RTB  
1963

## Iktroavile

2 June Barrow, Alaska

North Plot - still snow covered - only a few  
polygons top becoming visible

South plot - central ridge partially, low,  
but not continuous, so (south plot  
20% exposed) - 1 ♂ PS at 20.02.

8 June North Plot - 30-40% covered - but exposed in  
partly. 1 ♂ PS at 8.4. No other  
shrubland

South Plot - mostly exposed - mostly in  
upland - lowland area is still  
covered. No shrubland seen.



Heine  
1963

Beiluse - Vacuum  
Sargh

16 June Upland - taken 6-1/2-1

20 June B63-1 - upland  
2 Trough  
3 Slope  
4 Flatland

24 June B63-5 - U  
6 T  
7 S  
8 - (Flatland not (the duck direction /  
meadow)

28 June B63-9 - Top  
10 - Trough  
11 Slope  
12 Flatland

2 July 13 Top  
14 Trough  
15 Slope  
16 Flatland

6 July 17 Top  
18 Trough  
19 Slope  
20 Flatland

Sargh sat - 1 day &  
the sargh &  
hatched.



RTH  
1963

Barluse

10 July Barrow, Alaska

21 TOP  
22 Trough  
23 Slope  
24 Flatland

14 July

25 TOP  
26 Trough  
27 Slope  
28 Flat

16 July

29 TOP  
30 ~~Slope~~ TR  
31 Slope

- wet, cold, icy day -

small org. not saved

32 ~~Top~~ Flat

18 July

33 TOP  
34 Trough  
35 Slope  
36 Flat

22 July

37 TOP  
38 Trough  
39 Slope  
40 Flat

26 July

41 TOP  
42 Trough  
43 Slope  
44 Flat

29 July

45 - TOP + 2 sm. Ad  
46 - Trough  
47 Slope  
48 Flat





RTH  
1963

~~22~~

BERLESE

4 Aug Barrow, Alaska

49 - TOP

50 TROUGH

51 Slope

52 Flat

9 Aug

53

T

- Small org. not saved

54

Tr

55

Sl

56

F





RTH  
1963

Pond #1

16 June

P-A - 5.8 - 30' - clear - 25' - clear

P-B - 5.8 - 30' - clear - 15' - clear

P-C - 6.8 - 60' x 20' - 15' - clear

P-D - 8.0 - 60' x 20' - 15' - clear  
bottom - 15' - clear  
bottom - 15' - clear

P-E 8.5 (15' x 20') - 15' - clear  
9.5' - clear

U. 11 - 2' at 50' - 15' - clear  
15' - clear

P-F - 1.4 - 15' - clear

P-G - 1.4 - 15' - clear







RTH  
1963

Ford Sargus  
#3

24 June Barrow, Alaska

PA- 2.5 . 8.8° - 5"

PB 5.0 . 9.2° - 4"

PC 6.1 . 10.0° - 4"

PD 7.2 . 10.5° - 4"

PE - 10.0 . 10.5° - 4"

PF 11.0 . 10.5° - 4"

PG 12.0 . 10.5° - 4"





RTH  
1963

PS  
#4

28 June Barron

PA - 2.5 - 10 x 15' - pbr = 6" T = 1.5

PB - 4.5 - 10 x 15' - pbr = 6" T = 1.5

PC 6.5 - 10 x 15' - pbr = 6" T = 1.4

PD 6.5 - 10 x 15' - pbr = 6" T = 1.4

E 6.5 - 10 x 15' - pbr = 6" T = 1.4

F 6.5 - 10 x 15' - pbr = 6" T = 1.4

G 6.5 - 10 x 15' - pbr = 6" T = 1.4



RTT  
1963

sample  
Panel # 5

2 July Barrow

	Temp	Level	PS
PA	9.0	2.5	5"
PB	8.8	5.0	"
PC	8.8	6.0	5'
PD	9.0	6.5	4"
PE	8.8	7.	
PF	9.0	4.5	4'
PJ	9.0	5.5	4'



Holmes, R.  
1963

Pond Sample #6

6 July Barrow, Alaska

	level	T	ps
P-A	3.0	15.6	64
E	6.0	15.4	61
C	6.5	15.6	"
D	6.8	15.6	"
E	7.5	16.5	" 7
F	5.0	18.2	
J	5.8	15.8	



RT4  
1963

Pond # 7

10 July

Level

Length

A

3.0

B

5.5

C

6.0

D

E

F

G





RTH

Ford Sample #8

7/14/63

	Depth	Temp	Wind
A	2.0	12.0	4.0
B	5.0	12.0	4.0
C	1.0		
D	1.0		
E	6.0		
F	1.0		
J			



Holmes, R.  
1963

Pond Sample #16

22 July Barrow, Alaska

	level	temp
PA	2.3	1.2
B	5.4	1.2
C	6.1	
D	6.5	
E	6.4	6.6
F	4.5	15.3
J	5.3	1.1



RTW  
1963

Pond Sample # 11

26 July Barrow, Alaska

PA

Level

Temp

2.1

B

5.3

C

6.2

D

6.5

E

6.1

F

4.1

11.4

J

5.1

11.0



RTH  
1963

P Sample # 12

29 July

	Length	Weight
A	3.3	4.0
B	5.0	8
C	4.0	4.0
D	4.0	1.0
E	7.2	4.6
F	4.0	
J	5.1	





RTV  
1963

Pard - #13

4 Aug Barrow, Alaska

PA - 3.4 4.6°

PB 5.7 8.0°

PC 6.5 8.6

P-D 6.7 6.6°

P-E ~~7.1~~ 4.2°

P-F 4.8 8.2

P-J 5.8 7.0



RTH  
1963

Pond Sample # 14

9 Aug

	Level	Temp
PA	3.5	5.6
PB	- strike zone	5.4
PC	6.5	5.2 4.8
PD	4.8	
PE	7.1	
PF	4.8	
PJ	5.8	

PS - 15'

14 Aug

1		
P-A	3.5	5.8
P-B	-	5.0
P-C	6.5	5.0
P-D	6.7	5.6
P-E	7.0	5.2
P-F	4.6	5.8
P-J	6.1	5.2



Holmes, R.  
1963

Pond Sample 16

19 Aug Barrow, Alaska

	Wind	Temp
PA	5.0	2.0
B	5.0	2.0
C	5.0	2.0
D	6.0	2.0
E	5.0	2.0
F	5.0	2.0
J	5.0	2.0



RT#  
1963

PS-17

2/

	T	Level
PA	13.2	3.3
PB	11.8	
PC	12.2	6.5
PD	8.6	6.7
PE	13.0	7.0
PF		4.8
<del>PG</del>		6.0

25 Aug

AACS - 1 PS - T

So far - 1 RB - Ad

" " - 3 T, 6 RB - KB

So far - 2 PS

2 RB-





RTH  
1963

OP - /

20 June Barrow, Alaska

OP A - 0940 - 0950 - 2 sawfly - Ad.  
OP A - - 1 "  
A'' 1 "

OP B - 1005 - 1015 - 1 spider  
B' - 0  
B'' 2 Ad Staph. beetles

OP C - 1025 - 1035 - 0  
C' - 1 Ad. sawfly  
C' 1 St. larv

OP D - 1045 - 1055 - 0  
D1 - 1 sawfly  
D'' 1 "



RTH  
1963

DP plot - 2

24 June Barrow, Alaska

ORH - 1440 - 1450 - 1 Ad. midg

OPA' - 1 " "

A#

2 Ad ♀ Tyr. la

A''

4 sm. Myd.

1 Ad. Gau.

ORB 1500 - 1510 - 0

D'

1 spid

B''

0

OPC - 1520 - 1530 - 0

C'

1 Lp Ad. midg

C'' - 0

OPD - 1540 - 1550 - 1 spid

1 Ad Stoph.

D'

0

D''

0



RTA  
1963

OP - 3

28 June Banner, Ariz

OPA - 1440-50. - 1 Ad ♂ 1440.

2 sm. light

A' -

○

A''

2 lg Ad. Chiron

1 Saw fly ad

OP-B - 1500-1510, -

B'

○

B''

1 Ad. Staph beetle

OP-C - 1520-30, - 1 spider

1 Ad Staph

C'

-

○

C''

-

○

OP-D - 1545-50 -

② 1 Myab Ad

D'

○

D''

○



Holmes  
1960

OP-4

2 July Bana

OP A 1510-20. - 2 Antho. Ad.

2 sm. ? dyp. Ad

1 spider

1 sm ?

2 sm ?

1 spider

A' -

A''

OP B 1530-40 - 1 ♀ TIDUA

2 sm dyp. Ad

B' - 1 saw 1 ♀

D' - 2 sm ?

OP C 1530-1600 - 3 sm ?

1 spider

C'

- 2 sm ? Ad

C''

- 1 Ad & Pedicel

1 sm !

OP-D 1610-1620 -

D'

D''







Holmes.

OP-5

1963

6 July Barrow, Alaska

OPA-1425-35 - 4 Ad Anko

5 " Mycet

3 sm ? Ad

3 mosquitoes

OPA' 2 sawfly, Ad, 1 midge, 1 humb-  
bee, 1 Ad hemiptera, 1 ♂ Tipula 16 mosq

A" - 8+ mosq. 2 Ad. 2 mile Ad.  
2 sm ? Ad

OPB-1445-1455. 2 Ad midges - 2 Ad Pedes -  
15+ Mosq. -

B' - 1 ♂, 1 ♀ Tipula, 3 Ad Pedes, 8 Ad  
midges, 2 Ad. Hemiptera, 2 sm! Ad.

12+ mosq.

B" - 1 ♂ Tipula, 2 Ad. mosq - 1 Ad. 1 sm - 1 mosq?  
12+ mosq.

OPC-1505-1515 - 8 Ad Pedes (20714) - 2 Hemiptera

Ad, 1 midge Ad, 1 Staph. Ad. 30+ mosq

2 - 1 Ad ♂ Ped, 1 Ad. midge, 15+ mosq. 3 sm! Ad  
Anko. - 2 sm, cataph. Ad.

3 - 5 Ad. Pedes ♂♂. 1 Ad Anko, 1 Ad. midge  
1 Ad Mycet. 3 sm ? Ad - 50+ mosq

OPD-1525-1535 - 1 spider, 3 mycet. Ad - 1 mosq

- 30+ mosq

D' - 1 Ad ♂ Ped, 3 Ad midges, 3 Ad Hemiptera, 2? sm, 15 mosq

D" - 1 Ad sawfly 1 Ad brown Mycetophora (1000 mosq?)

1 mosq 4.5 mosq



RTH  
1965

OP - 6

18 July

OPA - 1440-50 - 2 ♂ Ad Tipula, 1 ♀ Ad Tip, 2 midge Ad  
2 sm? Ad - 2 An. Ad.

A' - 2 ♂, 1 ♀ Tipula, 2 An. Ad, 1 midge, 1 sawfly  
4 sm? ad dy.

A'' - 1 ♂, 1 ♀ Tipula, 3 An. Ad, 1 m. dy, 6 sm?  
3 sawfly

OB - 1500-1510 - 14 ♂ Pedicia - 3 mycet. - 1 An. Ad  
4? sm Ad

B' - 15 ♂ Pedicia, 3? Ad. - 1 An. Ad - 1 myc

B'' - 10 ♂ Pedicia - 1 sawfly, 1 ♀ Tipula - 3? Ad

OPC - 1520-30 - 5 ♂, 1 ♀ Pedicia, 6? small Ad

C' - 5 ♂ Pedicia, 1 ♀ Tipula - 3 sawfly  
- 2 mycet. type - 5? Ad

C'' - 6 ♂ Pedicia, 1 ♀ Tip, 2 sawfly  
4? Ad.

OPD - 1540-50 - 4 ♂, 1 ♀ Pedicia, 1 ♀ Tipula  
- 3 mycto - 1 An. Ad - 6? Ad.

D' - 6 ♂ Ped. - 3 mycto - 1 ♂ Ad

D'' - 5 ♂ Ped. - 1 Ad Prorhinotermes  
3 Ad myc. 3 Ad sawfly - 4? Ad.



RTH  
1967

68-10

26 July

OP-A- 0

A' 0

A'' 0

OP-B 0

B' 0

B'' 0

OP-C 0

C' 0

C'' 0

OP-D 0

D' 0

D'' 0

Cold wind, no rain last night + sprinkle  
all day today.



RSK  
1963  
12 June

21

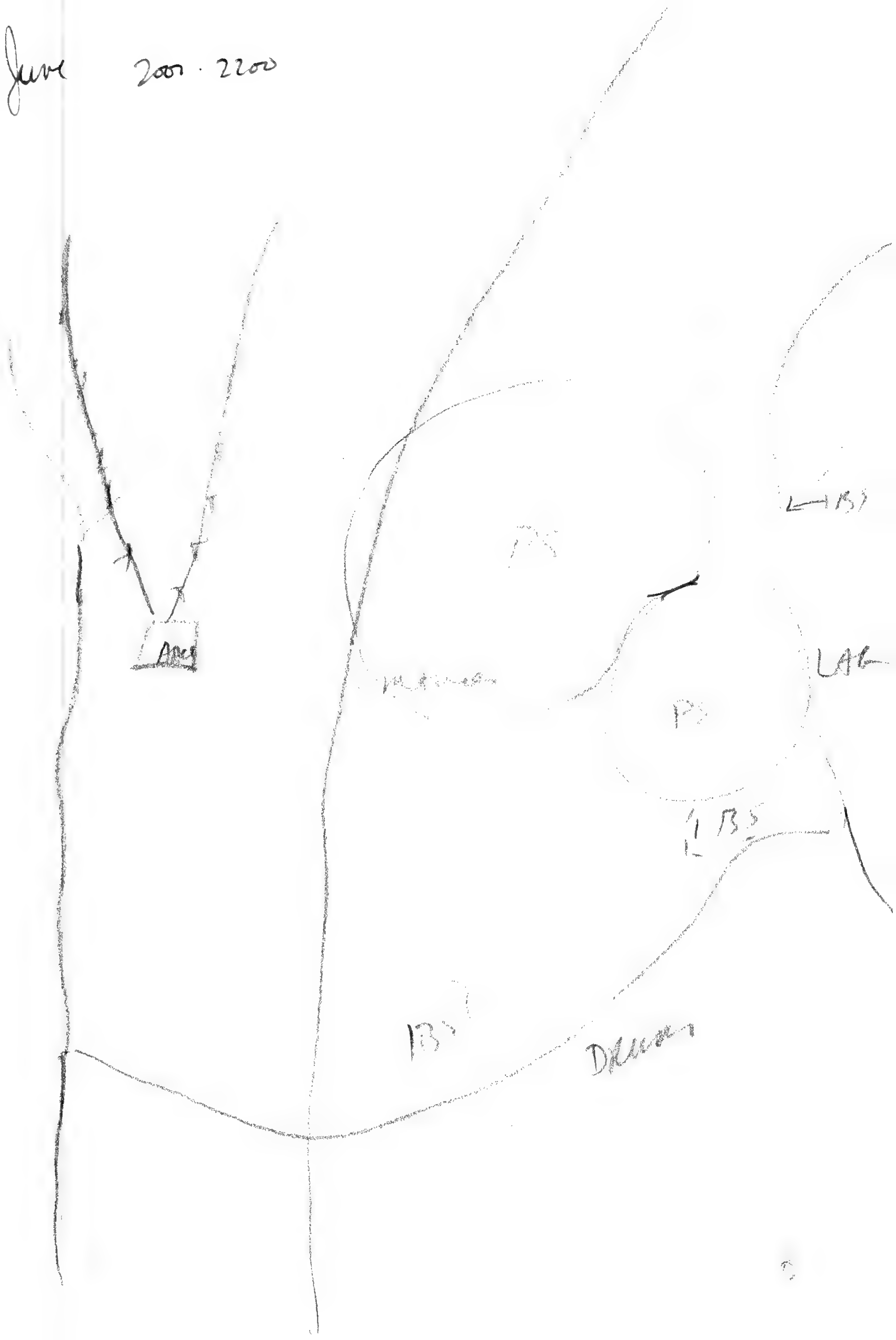
21





20 June

2001 - 2200

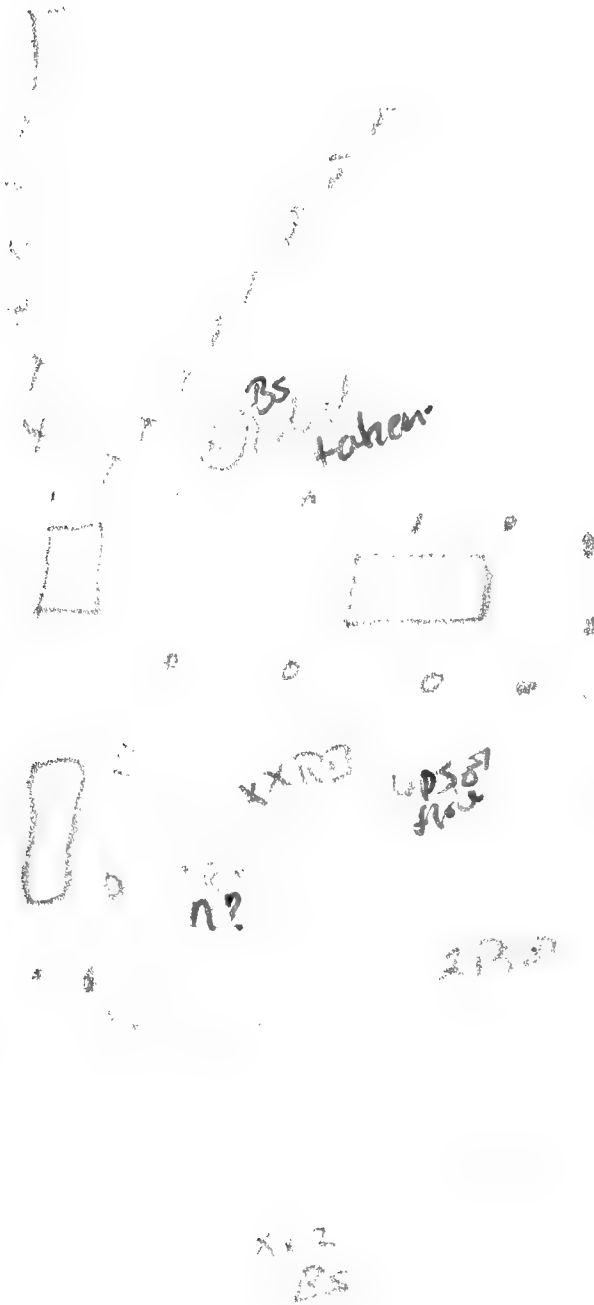




Holmes, R.  
1963

APCS

30 June



UP587

collected



274  
1963

15 June

21

18

APSC

PS

ARB

APSC

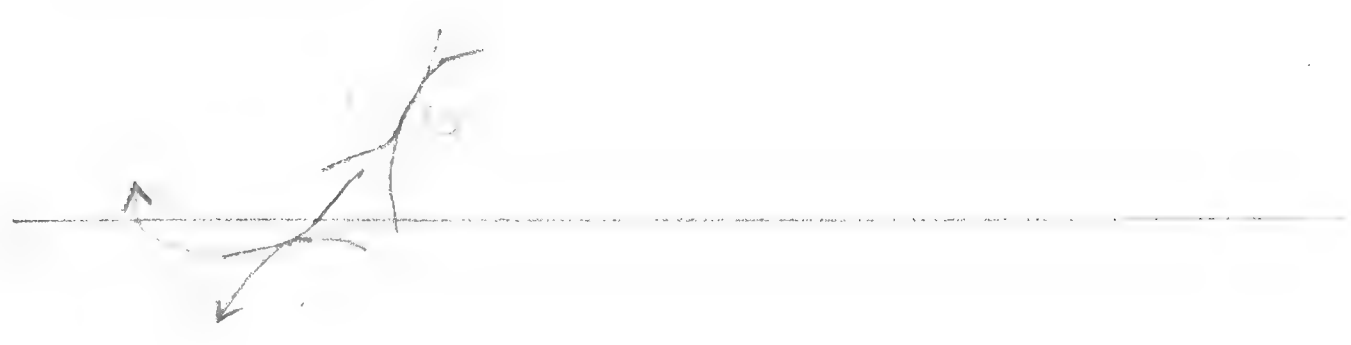
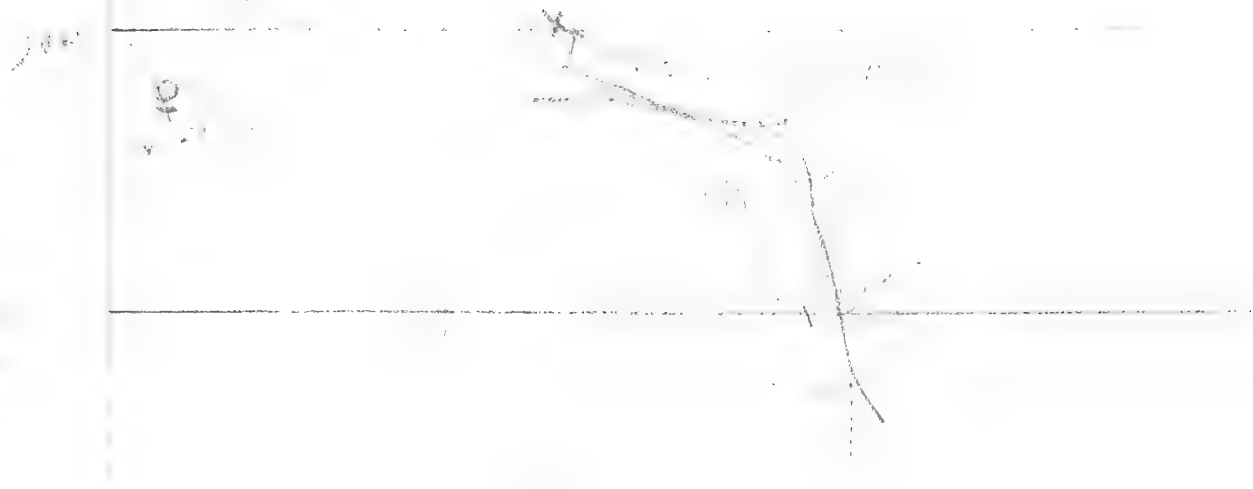
APSC

(P)



RTT  
1963

15 June



x/x



x/x

x/x

x/x

x/x

220

~~12~~

~~12~~  
~~12~~

220

x20

~~12~~  
~~12~~

12

220



63  
15 June

*[Faint, illegible handwritten notes]*

7. 11. 1964

012



15 June 1963

Remains of [unclear]  
[unclear] [unclear] [unclear]  
[unclear] [unclear] [unclear]  
[unclear] [unclear] [unclear]

[unclear] [unclear] [unclear]  
[unclear] [unclear] [unclear]  
[unclear] [unclear] [unclear]  
[unclear] [unclear] [unclear]

125 [unclear] [unclear]  
[unclear] [unclear] [unclear]  
[unclear] [unclear] [unclear]  
[unclear] [unclear] [unclear]

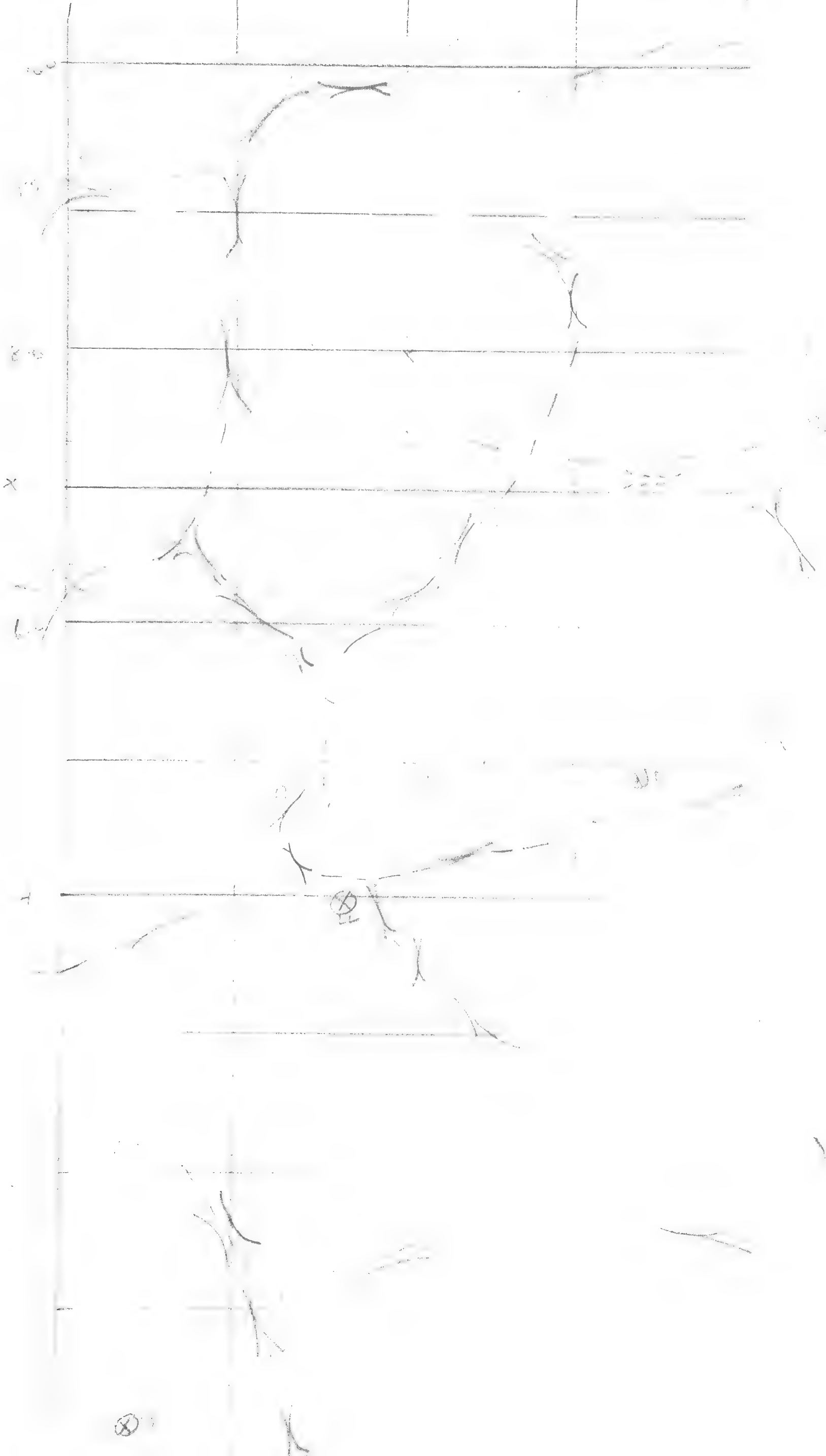
P1 - new SW F10 -  
2 eggs [unclear] [unclear] [unclear]  
[unclear] [unclear] [unclear]



RT4  
1963

17 June

000-1400





RT14  
1963

11 June

18.0

12.0







RTA  
1963

17 June

24.0

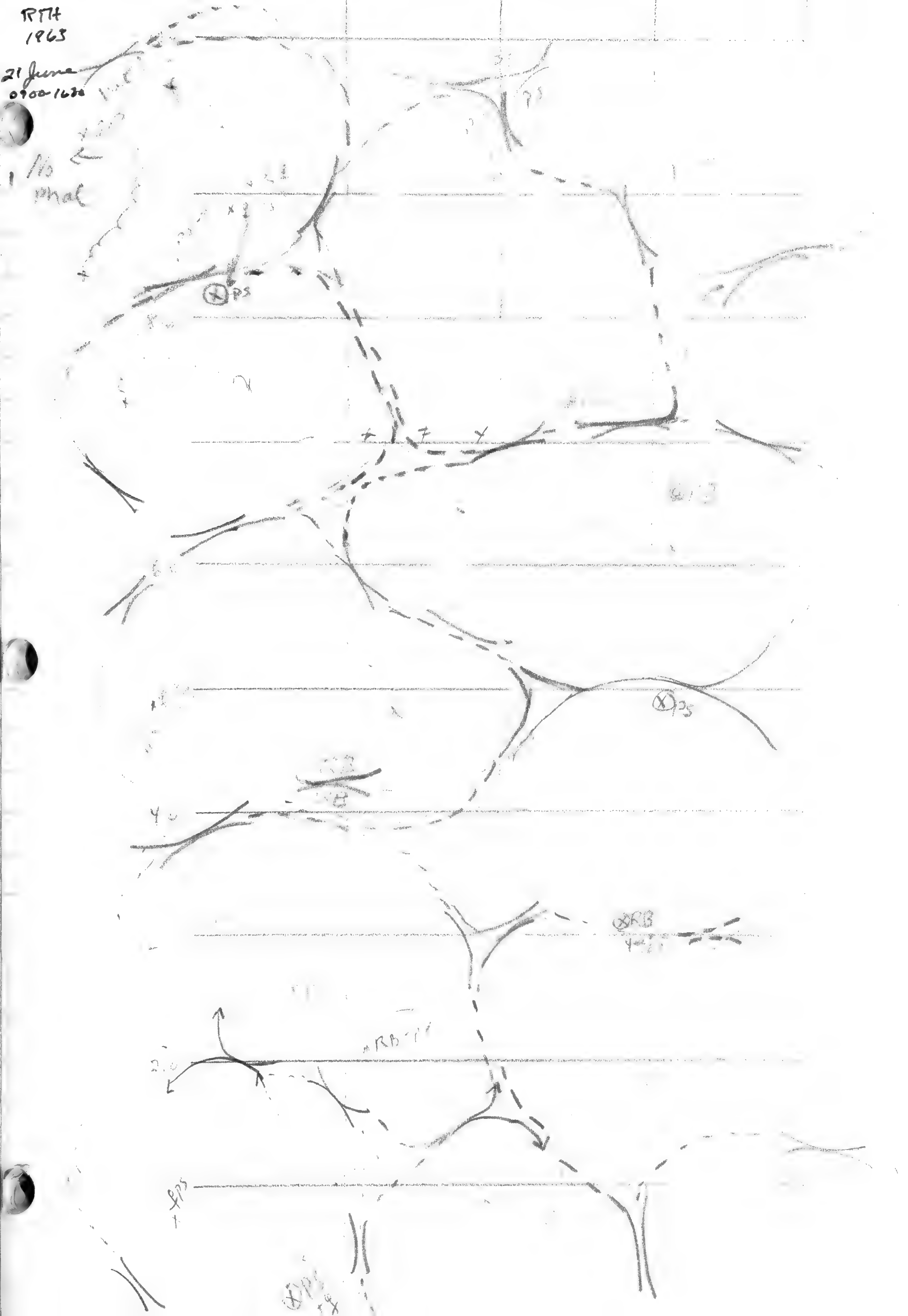
27.0

2 Kettaway light -  
- not intensified  
worked



RTT4  
1963

21 June  
0900-1630





RTH  
1963

21 June

350

180

160

140

120

QPS  
440

GRP  
4

GP  
P

QPB

QNB

QPL  
540

LT  
RT



RTM  
1963

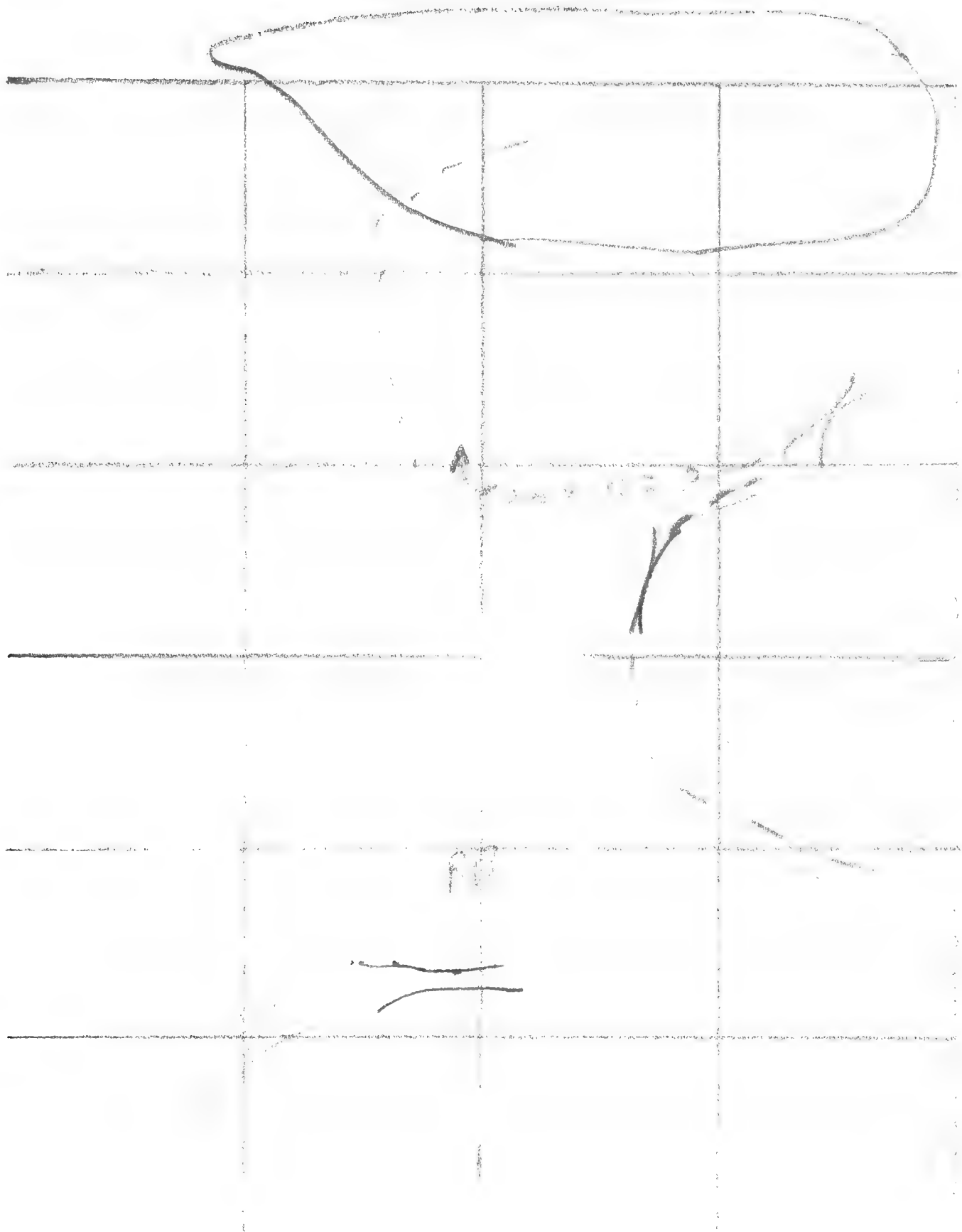
21 June

25.0

22.0

21.0

20.0



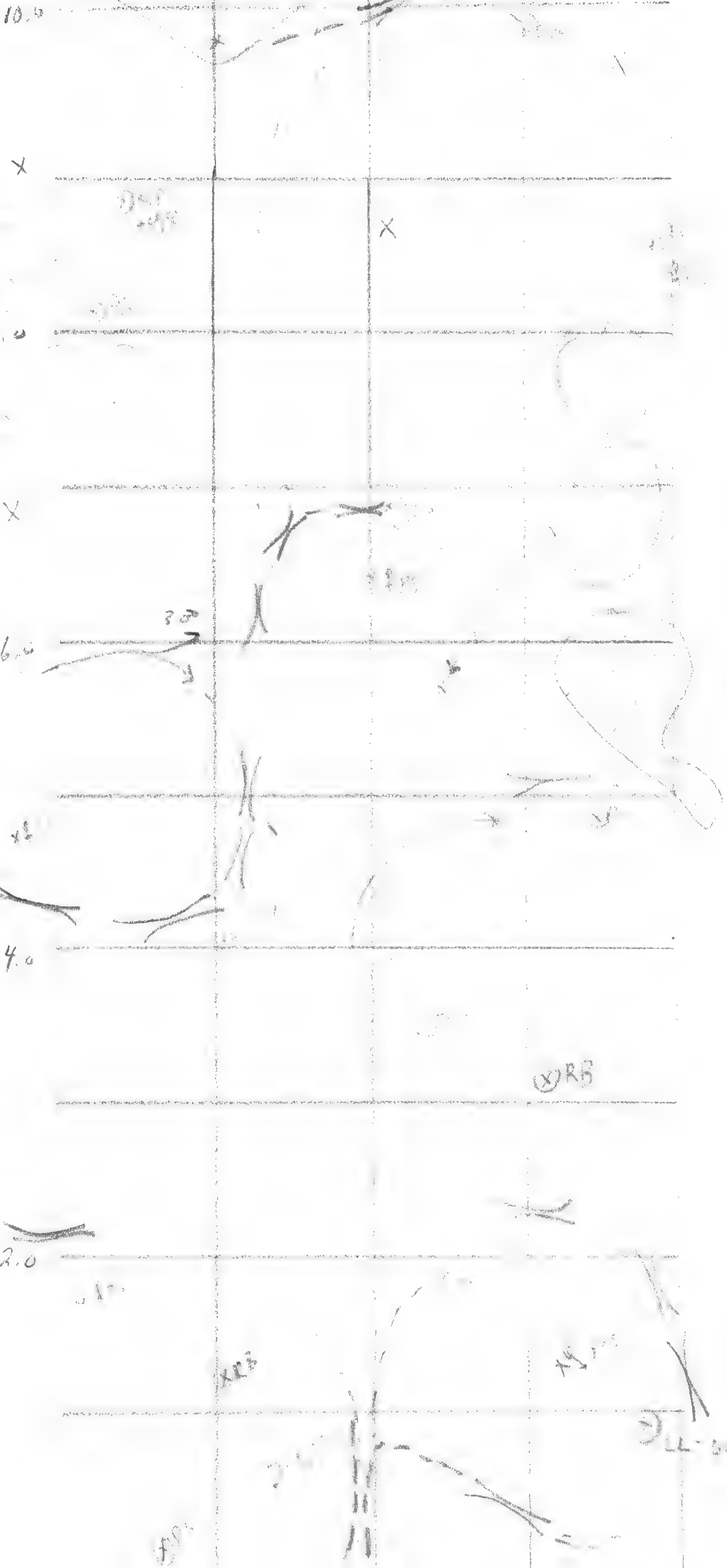




Holmes  
1962

25 June  
0900-1600

up PLT -  
cl -  
- little ps  
- activity  
- X = 2 ps





RTH  
1967

25 June

24'

20

18

16

14

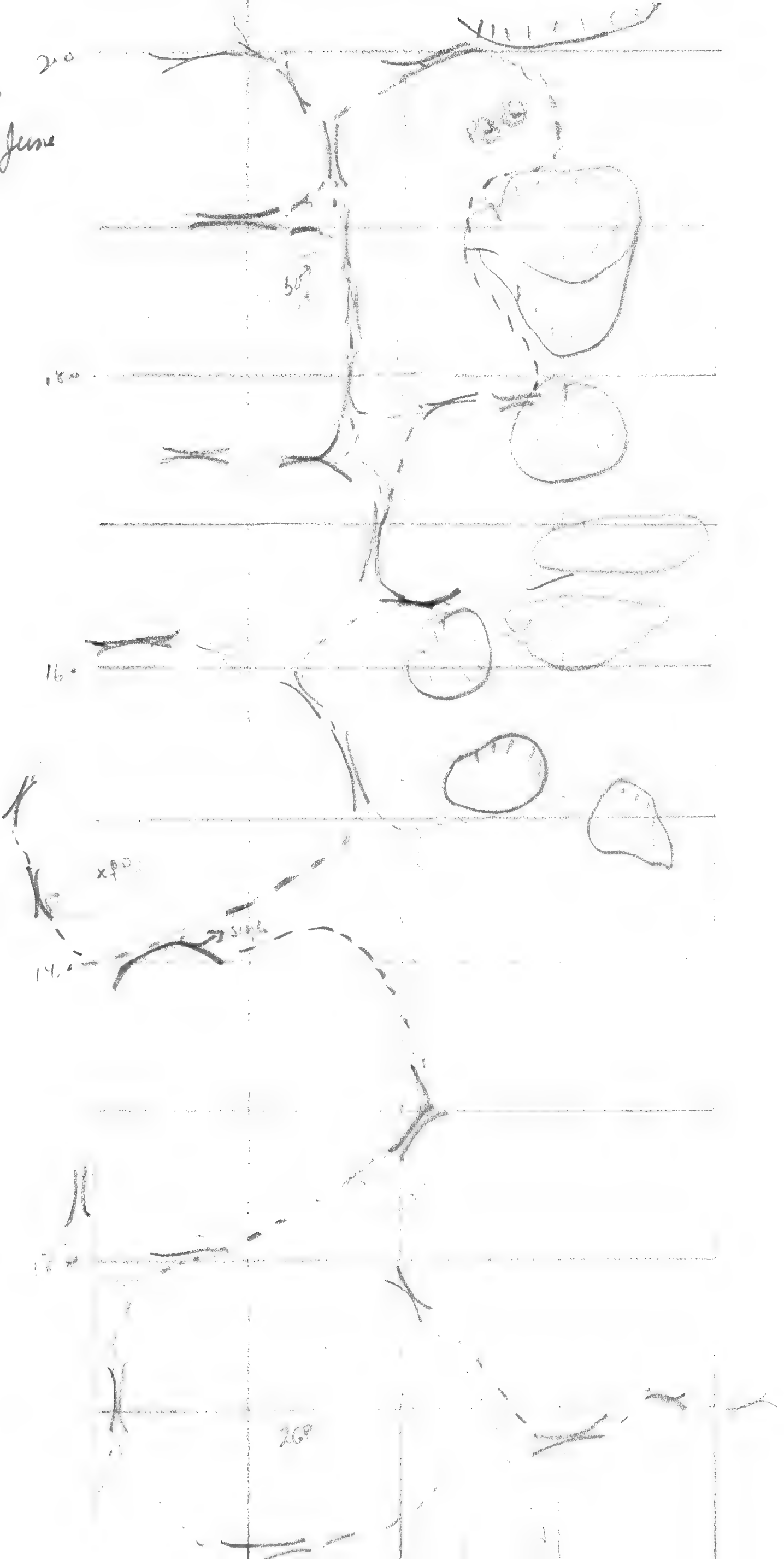
12

50'

x 90'

50'

26'





RTH-1963

25 June

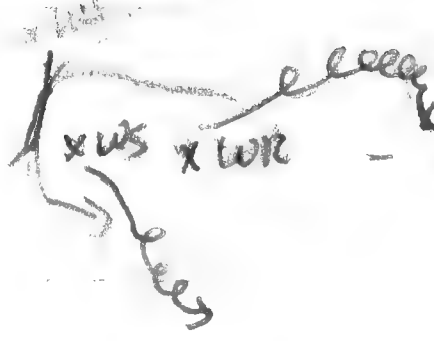
250



ORR  
4 eggs

8-8 DS

OX<sup>1</sup>



xws xwr

collected in late afternoon

220

ORR

NO 15

- source at ground

210



150



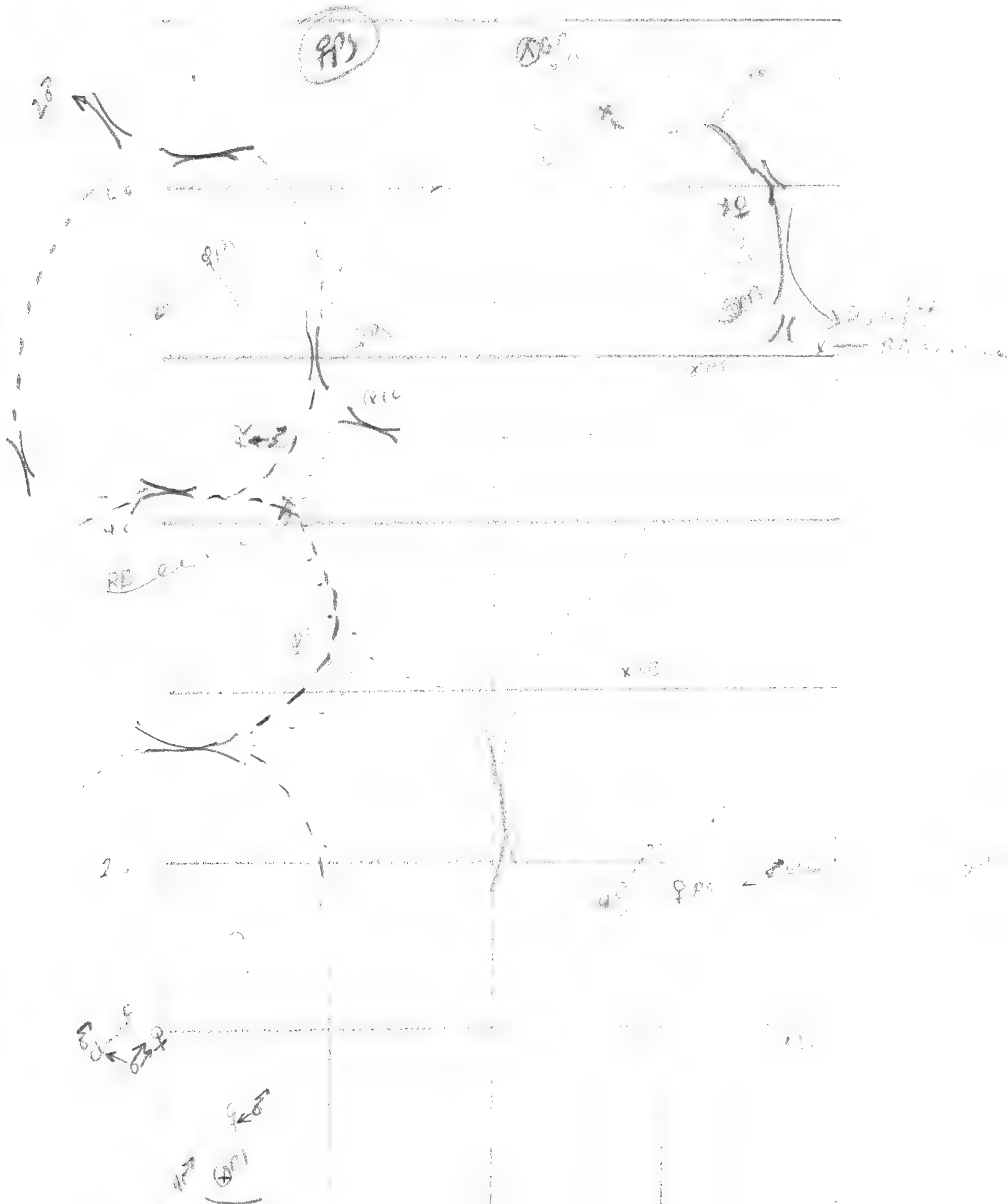


RT4

1963

29 June

0900-1600







RT14  
7/6/7

29 June



XP



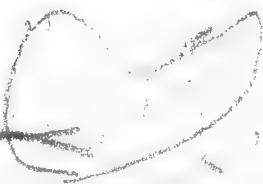
21/8

11.0

XP

XP

ORB



GP

XP

11.0

12.0

XP

XP

XP

XP

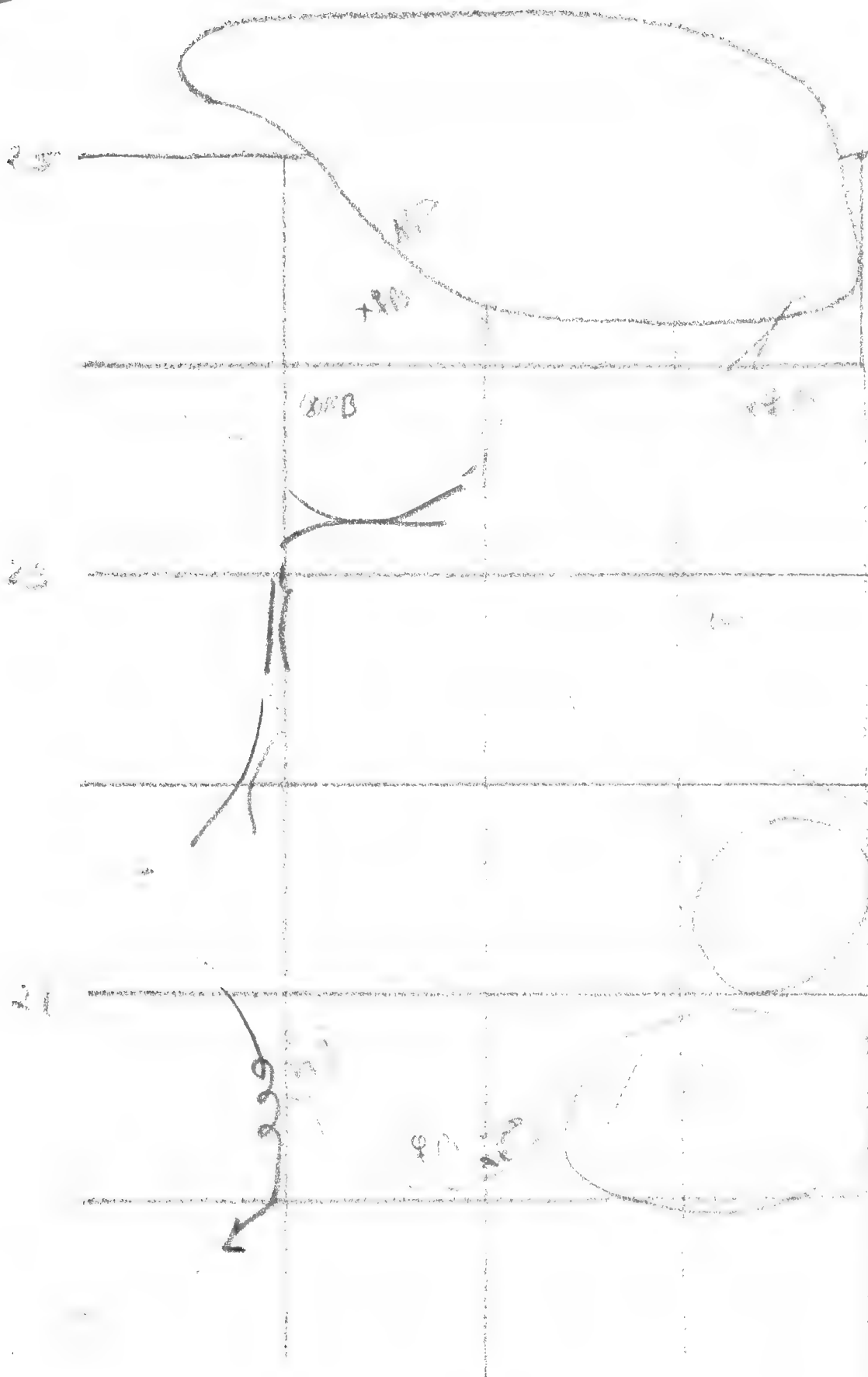
XP

+



Rnt  
1963

29 June



1870

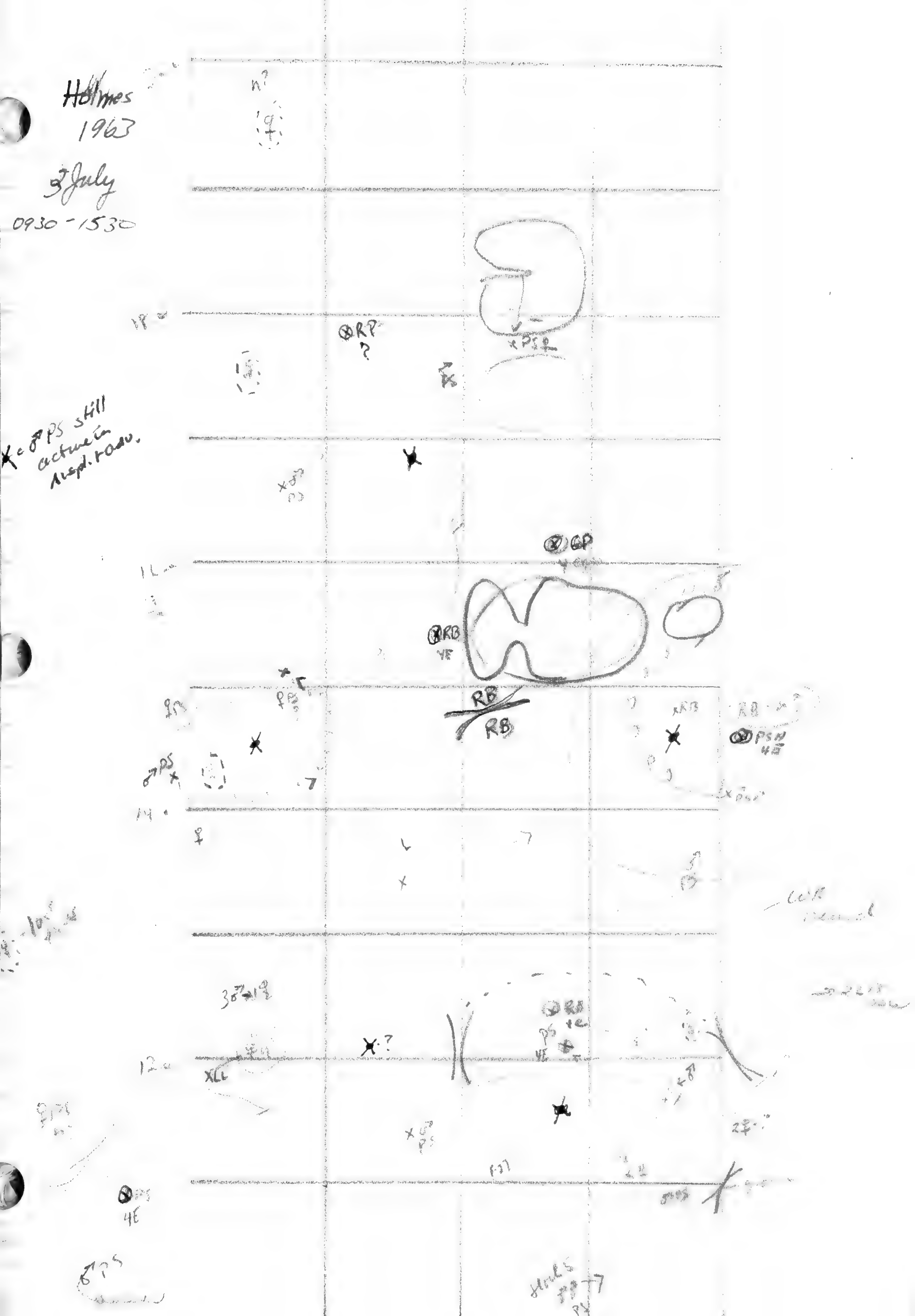


Holmes  
1963

3 July

0930 - 1530

\* 8 PS still  
active in  
Aspl. road.





RT74  
1963

100

3 July

100

QPS  
n?  
4E

QPS  
4E

QPS  
4E

X

→ 100

+0.1  
QPS  
4E

X

QPS  
4E

QPS  
4E

QPS  
4E

QPS  
4E

4.0

2.0

QPS  
4E

QPS  
4E

G

2.0

QPS

QPS

QPS

QPS

QPS  
4E

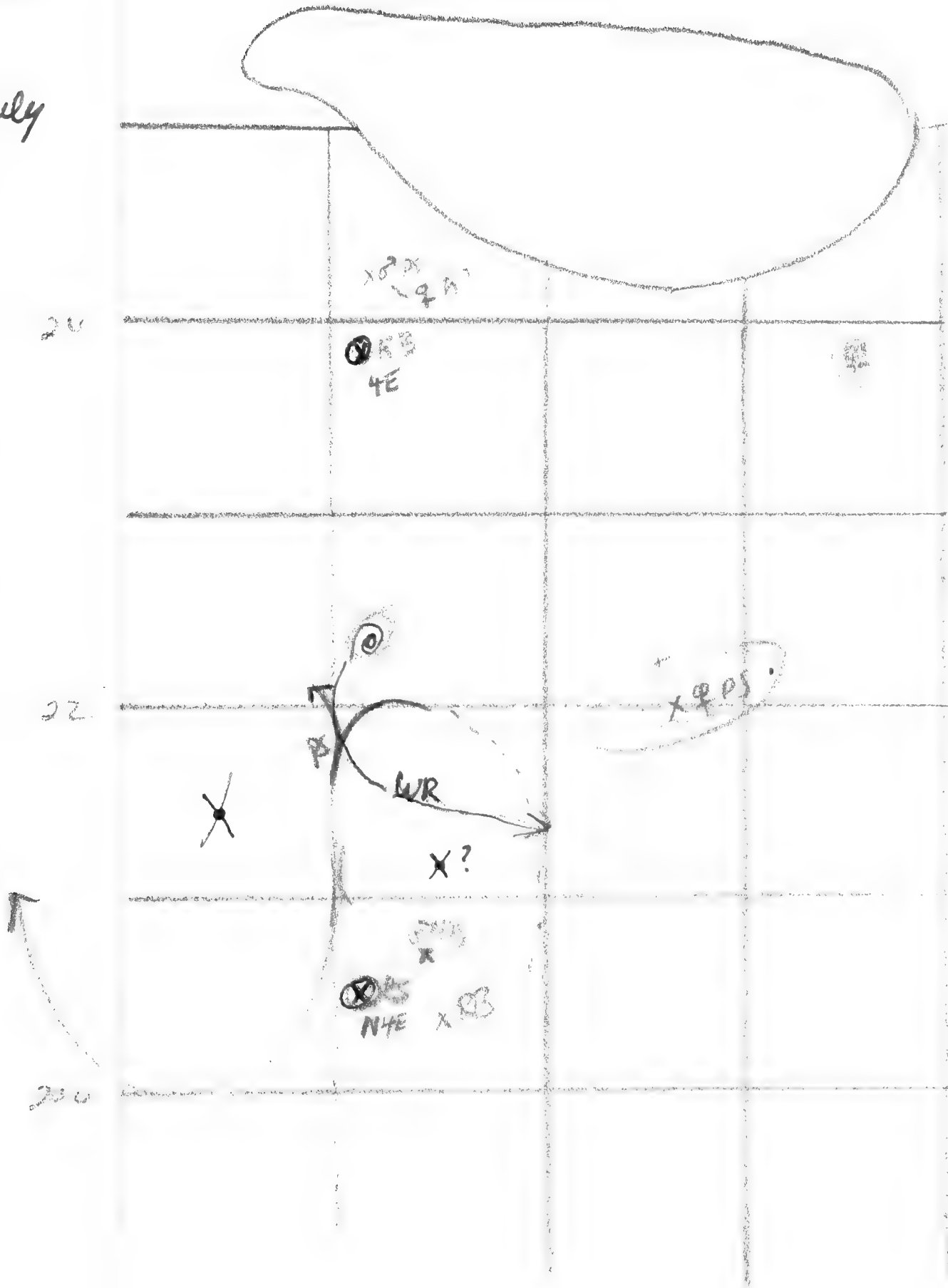




RTH  
1963

3

3 July





Holmes  
1963

48  
24

RB  
4E

7 July

0900-1605

RP  
2 de vel - 1000  
chick - under egg

OPS  
- eggs

35

GP  
FE

♀

RB

+ PS  
KE

PS  
31-1E

not  
caterpillar 12:00  
impatient  
- it still  
eaten

LL  
empty

♀

RB  
9000  
1 shell egg

PS  
4E

20

249  
2000

LL  
57

OPS  
empty

OPS  
4E



RNk  
1463  
7 July

or  
Young

⊗ RP  
4E

♀

⊗ OP  
4E

⊗ RB  
1500-PM  
-NY

+ ⊗ PS  
4E

24  
PM

1.2

863

⊗ AS  
4E

24  
PM

⊗ RB not ready  
empty  
⊗ PS  
empty

12.0

31  
4E



RTH

1963

7 July

ORB  
empty

220

150

200

XPS  
4E  
1 broken to  
handley





RTH

1965

RB  
4E

9 July

0430-1600

RB  
4E

RB  
4E

RB  
4E

401

RB  
4E

RB  
4E

RB  
4E

7

Sc

RB  
4E

RB  
4E

RB  
4E

RB  
4E

RB  
empty

RB

RB  
4E

RB

RB

4

7

3

477

OGP  
4E

12

811  
-2

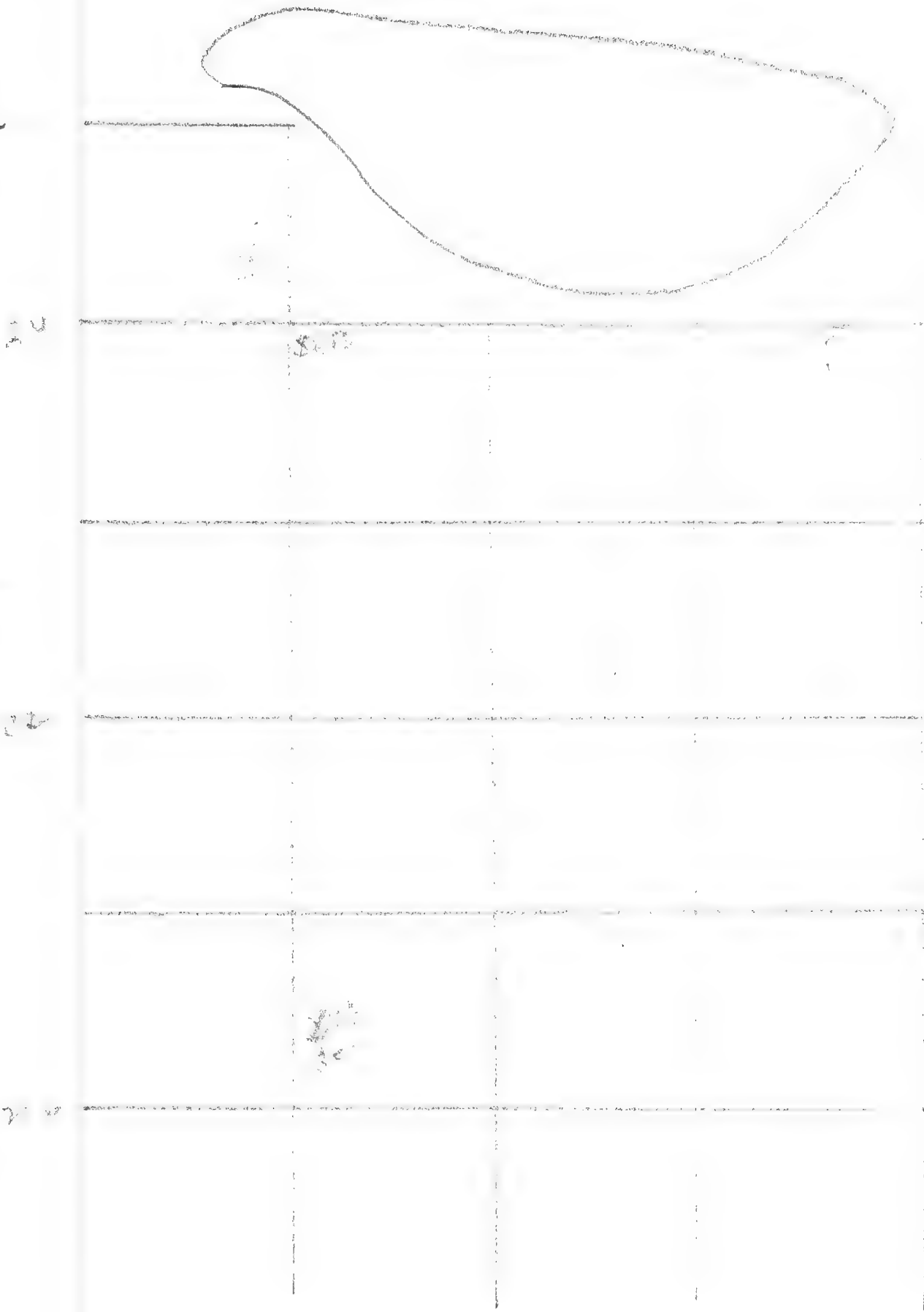
811

110  
7545

X

Holmes  
1963

9 July





Holmes, R.  
1963

⑧ 3  
4E

13 July

25

0900-1530.

300

100

100

100

100

⑧ 3  
4E

100

⑧

⑧

⑧  
4E

⑧

⑧

⑧

⑧

11

Holmes, R.  
1963

2.

13 July

\_\_\_\_\_ +

\_\_\_\_\_ +

\_\_\_\_\_ +

\_\_\_\_\_

\_\_\_\_\_ +

\_\_\_\_\_  $\frac{1}{4}$

\_\_\_\_\_

\_\_\_\_\_ 7

\_\_\_\_\_

\_\_\_\_\_

14

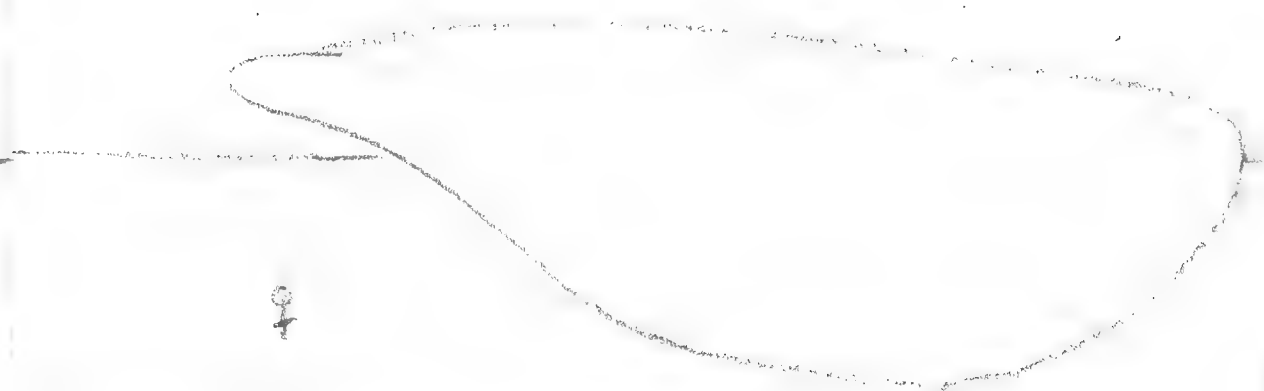
10 x 5





Holmes, R.  
1963

13 July



ORBS

9

⊗ PS  
4E

n?

⊗ PS



Holmes 1000

1963

17 July

0700-1500

⊗

⊗

⊗

⊗

⊗

⊗

⊗

⊗

⊗

⊗

⊗

⊗

⊗

4E

200

3

③

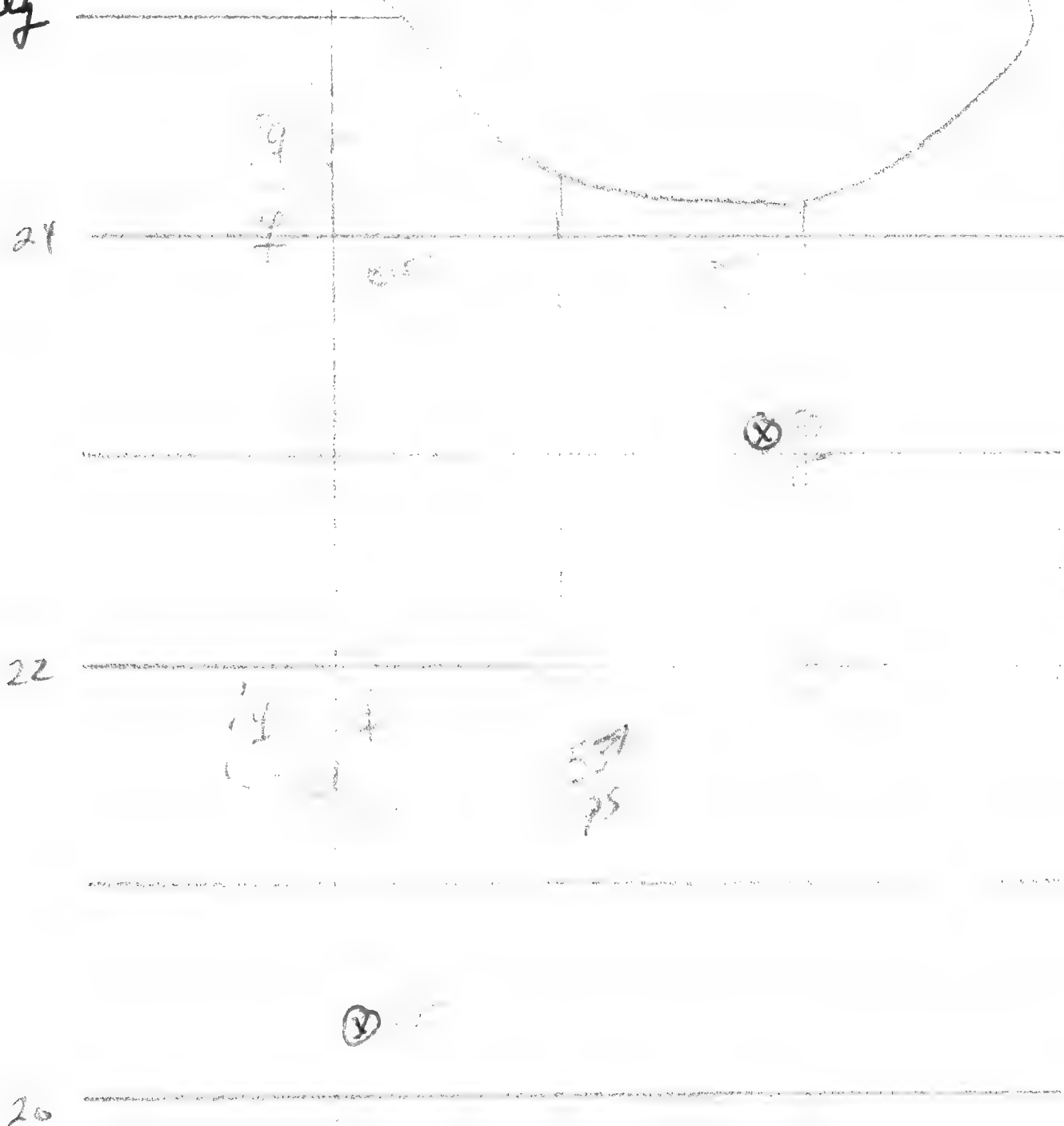
8

4

7

Holmes,  
1963

17 July





Holme  
1963

20 July

1-7-51

1212

5.0

7.0

12

Q

2-1-11

Q

Q

4E-7

0.8 4-12-44

♀



88 25

88 25



#44



35-2

62



RTH  
1963

20 July

250

600

230

South  
street

200

200



SPR 4 600

60

SPR 4 600



SPR 4 600

SPR 4 600



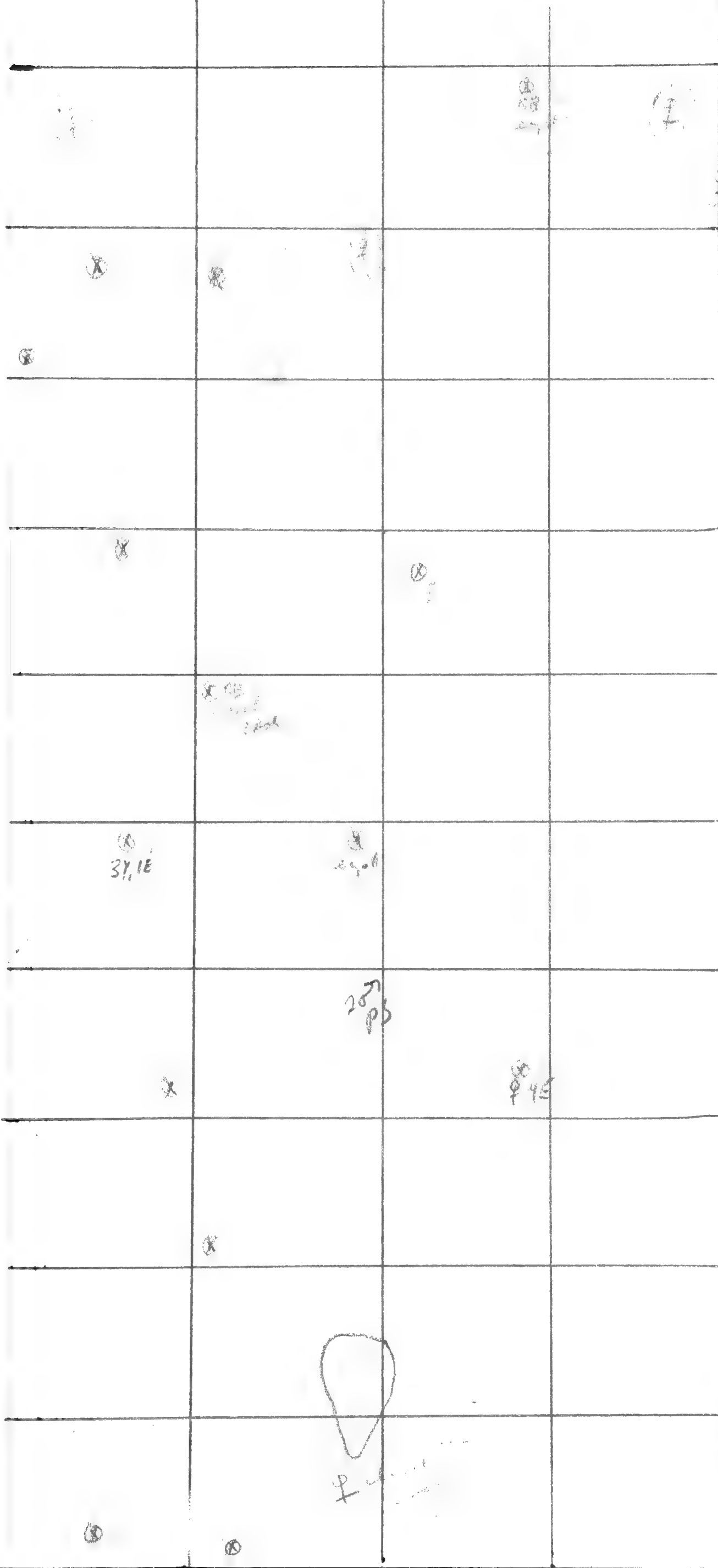
RTH

1963

10.0

23 July

1000-1400



5.0

19.0 19.1

31.1E

20.0A

20.0B

19.0E



19.0A

0.0

20.0

20.0

20.0

19.1

2

15.0

15.0

15.0

15.0

15.0

24.2

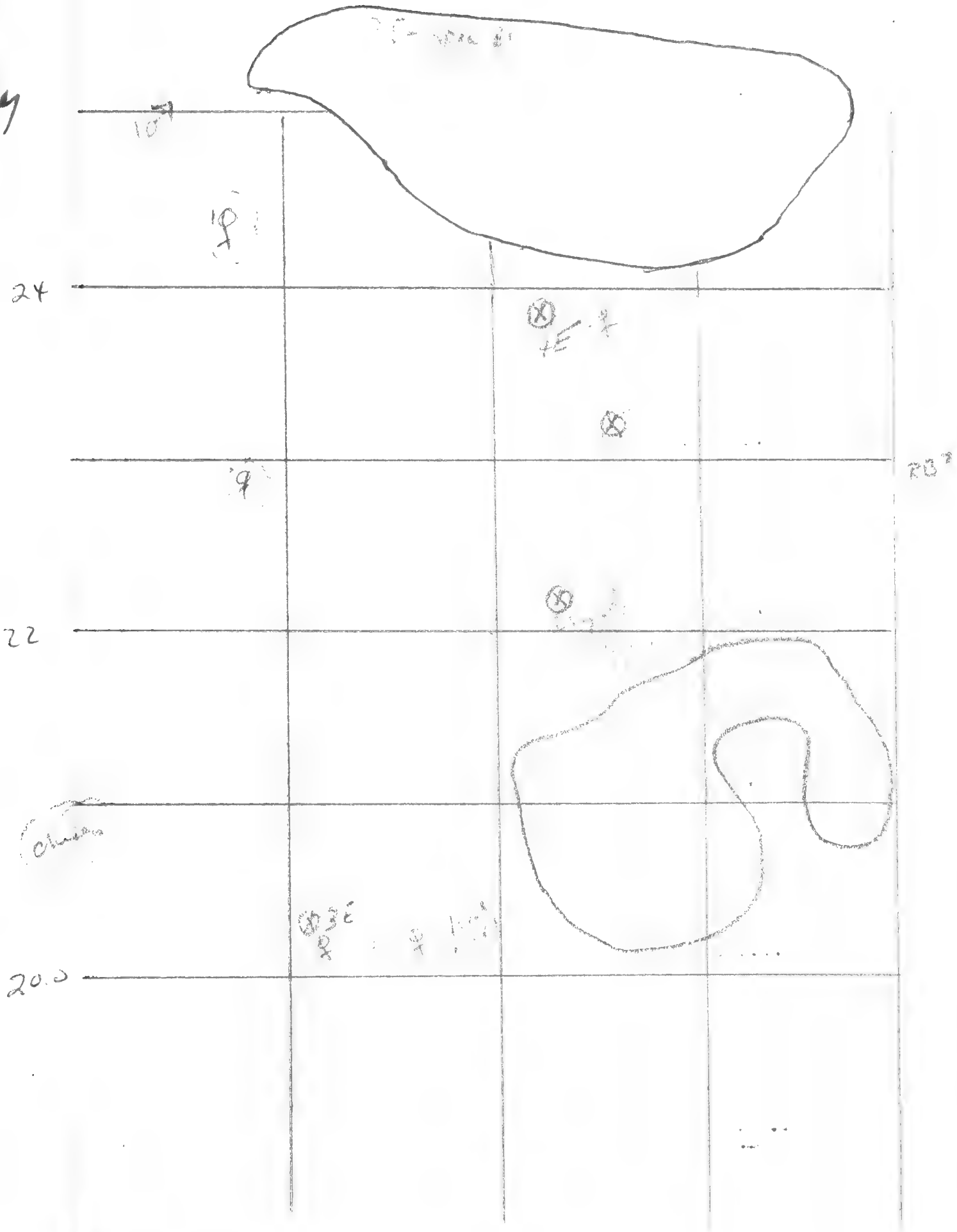
24.2

24.2

24.2  
mdd

RTH  
1963

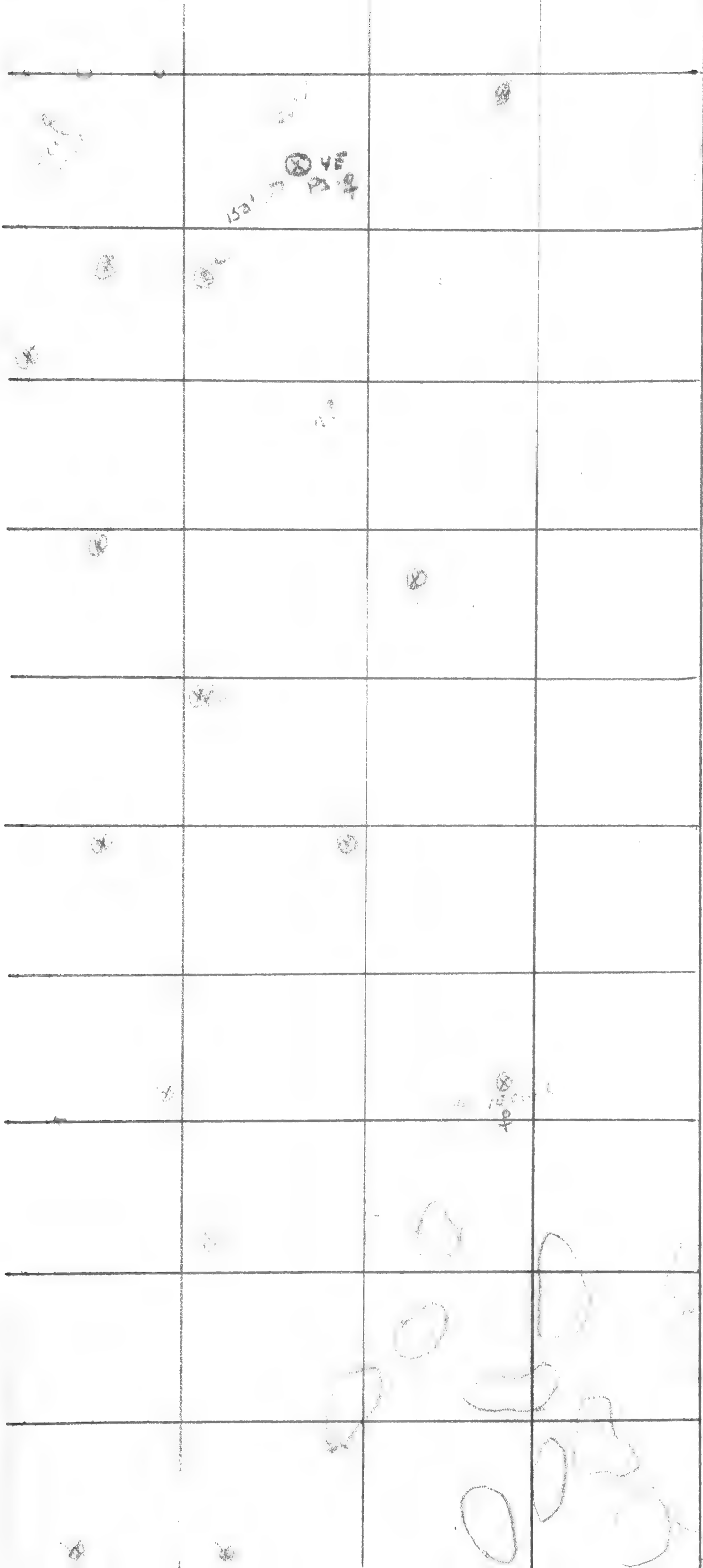
23 July





Holmes, R.  
1963

25 June  
0830-1130



25 June  
0830-1130

28

2

0030

5/1/19

38

14RP  
2000  
2000

5/1/19

8

4/1/19

3RPS

38



Holmes, R  
1963

25 June

21

← 125

22

20

(18)

(19)

(13)

(10)

15-16 June

(11)

(12)

31 July  
8:00 AM

10:00 AM

11:00 AM



Hdms R. o.  
1963

28 July  
0900-1100

⊗  
zone

⊗  
4E  
100-5

⊗  
100-5

5

⊗  
100-5

4

20

15

X

(FL)

X

(FL)

X

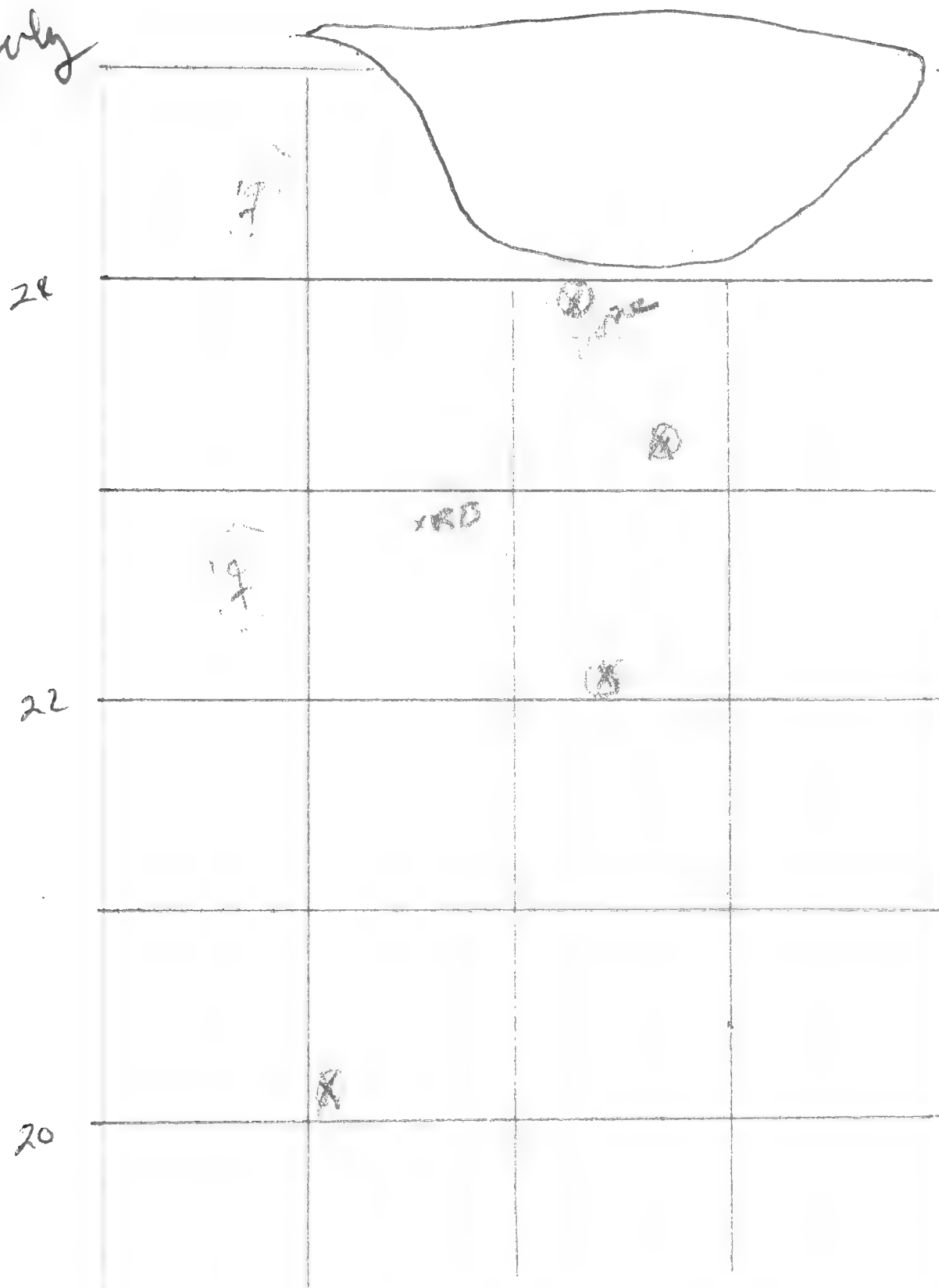
X

36-2

X

Holmes  
1963

28 July





Holmes  
1963

Opinion of the  
1963-1964 - closed

6 Aug

→ 3 IPS 1<sup>st</sup>  
3 IRD

PS →

→ 1 RB. 21

34  
S. E. C. 10

2200

① 25. 3. 1950



Holmes  
1963

6 Aug



R. Holmes

1964

Alaska

Journal

1964: Alaska: Barrow



R. Holmes

1964

Alaska

Journal

1964: Alaska: Barrow



Holmes, R.  
1964

Journal

3 June Fairbanks - Barrow, Alaska

Arrived ARL at 1630. From air, approx. 80% tundra is snow-covered. Weather overcast - light westerly wind - temp ~ 30-35°. Photos - some not possible due to ice in the day! - so will have to wait til tomorrow for going afield. Al Erickson, Hatched Dept. Fish & Game arrived with Martin Perkins, Kenneth / Ben & St. Lisa Zoo - w/ the Polar Bear!!

4 June - set up new lab & talked with Brown in the morning

1200-1430  
After lunch, walked through tundra area to HACS - went to salt lagoon & back to camp. Area 30% bare - mostly patchy - but several large areas (80 x 50' ~). In these areas found more birds, particularly Pectorals (4?; 10?; 14?) & Redpolls (2-3?). Semi-pals & birds were seen 2' - 3' in the tundra area; several birds were near HACS. 2 G. Plover also near salt lagoon. / Snowy Owl - sitting in P. Yucca near Tundra 1x, 1x, 1x short - sawd Owl near HACS, a Reddy Turnstone in tundra area. Scattered - mostly Pomarine Jaegers between end of tundra area & beach ridge. - Weather overcast, 10-15 mph SW wind 1600-2830. - Drove to beach ridge - walked along - E. on lagoon - n within 100 yds of beach ridge. - Weather sunny - 15+ mph SW-W wind - cold. Several groups of Pectorals, 2 KB, 2 GF, 1 Wr - sp. SW. Sh - e. Owls, Redpolls, Owl & 7m. Jaegers remaining





RTH  
1964

# Journal

2.

4 June Barrow, Alaska

activity was fair - about 14 indiv. seen in the draw - most were on the south slope of Wohlsehly Heights & in Central Marsh. - where also grass-digging & etc. was most evident.

In evening - sign + to S.M. - not aware broke contact at the beginning of the route. Walked with it - + wrote notes for remainder of evening - snow flurries.

5 June 0800-1130. To Barrow - via Totten & to the area.

Invest plots, Barrow Heights & Village & Long.

Weather overcast, cold NW wind - all possible

still re-covered at 1100: Jaegers scarce -

2 S.G., 1 Sh. Y. Owl. - but 1 running left -

UMH's bluff. - saw RB, PS, GP, RT + 2 Red Gulls -

seen. Very little display activity.

In afternoon - to Barrow - walked north end of Pitelka's

Plot (1<sup>st</sup> disp. PS. at NE corner, 2<sup>nd</sup> disp. LL), saw

jaegers but fewer than yesterday, 1 local male

chased an Amer. Rough-legged Hawk which was

sitting on the mounds along the ridge. Saw PS

+ RB along E/S on lagoon, north of Wohlsehly

Weather overcast - cold westerly wind.

Evening in lat. weather bad - wind reaching gale force - snow flurries etc.

6 June 0800-1100. Walked beach ridge from 4 band to

garline. 1 BS, 2 RB (pair), 1 PS transient, saw Pom Jaegers, 4. R.

Weather overcast - 5-10 mph. NW wind. Little disp. exc. RB.



Holmes, R.T.  
1964

## Journal

3

6 June Barrow, Alaska

1230-1430. Worked in ~~the~~ AAC area - 1 RB, 1 BS, 2 SW.  
little activity. 1530-1730. - went to E. bluff  
SAR/wharf - some flocks, but no  
display activity. Weather in afternoon sunny -  
but still with a cold west wind. No  
lemming run - but some ptarmigan, eiders +  
some gulls. No birds.

1900-2200 - Brit. Area + ridge south - 1 SP, 1 BS,  
see R.P. - RB disp. heard in chattering - very few  
larks. - clear - but cold. West (10-15 mph) wind.  
Eiders (mostly King) flying to west.

7 June 0800-1100. No. end of South 2A. even in natural  
chance, 1 pr. RB, 2 wh-r., 1 BS - weather clear -  
but still a cold west wind. Several flocks of  
eiders - mostly King - moving east - also 4  
wh-fr. Gulls. 1300-1600 - No. Area - Brit. Area -  
1 FS disp., 1 wh-r. seen, 1 wh-r., 1 BS, 1 SW. 2 Sh-e Owl.  
Lemming sign on both bluffs + some in Brit. Area - 1 seen.  
1600-1730. - Down area. 1 BS + SW. - 1 Pintail  
2000-2130. - No. Beach Ridge - 3 wh-r. chasing, 1 PS, RB -  
1 RB nest with 1 egg - 1 Sh-e Owl. Weather  
clear, light SW wind.

With sunny weather today - the melt has  
accelerated + the difference on BR + C.M. between  
this morning + this evening were striking.  
By evening, the N. ridge was nearly snow-free -  
100 yds wide - the mass heathland from



Holmes, R  
1964

Journal

7 June Barrow, Alaska

white to brown within 12 hours. Water was flowing everywhere. At the rate the snow will be all gone. Fog set in by 2100. - cool breeze

8 June 0830-1130. No B.R. - weather overcast, occas. sun. light easterly wind - generally cool. Bird activity poor - 1 RR, 2 PS, 1 FS, 5 W-R, 1 B-R. Sub., sev. Pm. Jagers. 1330-1600 - BR - no end of Pitikah's plot - photographed same PS - some coming 1 PS, 1 KB obs. - 1 ch-e. - 1 ch-e. - no snow. 1330-1740 - AACR - 2 DS, 1 FS, 1 W-R, 1 ch-e. Sub. Weather in pm - partly sunny - overcast & occas. fog. cold east wind. Melt ~~not~~ not proceeding so rapidly today. Evening in lab.

9 June Worked in lab + melted out poles + standards for fog this afternoon. 1000-1200 - overcast + No. BR - 1st time we have seen it. - white clouds are common, occas. Weather - overcast, cold (25-30°F) + windy (west - 10-15 mph) - snow blizzards all morning. All parks + we tried lake (yesterday - ice - top open -) was covered in ice at 1200. 1300-1600. BR, no. 1 Pitikah. - tried to lure in PS with marble but didn't work - tried it with another at south end of BR + got slight reaction. Weather still cold - below 32° all day - snow flurries - east wind. Mnt ponds + puddles still frozen at 1600. Maclean arrived in late afternoon.



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9 June Barrow, Alaska

In evening - went to area south of Fred Lake (Imikpuk) + watched White-rumps. at least 3 + possibly 4 displaying ♂♂ in that area + the one on the south side of the ridge. One pair watched + photographed. Weather cold -  $20^{\circ}\pm$  - east wind - all ponds frozen over + ice. Ponds cracked on the way out - were frozen  $1\frac{1}{2}$  hours later on the return.

10 June 0800-1100 - MacLean + I went to Beach Ridge - White-rump very abundant; several PS + BS. Weather partly overcast - cold east wind (10-20 mph). 1330-1700 - weather clear, sunny, but still windy (10-15 mph). White-rumped Sandpipers appear to be the most common sandpiper on the tundra - found today around ARCS - to the west - all along north beach ridge - between b.r. + gasoline ridge + gasoline ridge. 1 Band Sep. net with 1 egg near middle salt lagoon. 1930-2130. Voth Area + Voth bluff. Little bird activity - 2 ♂ PS displaying east of Lakeview Road - 1 WR, 1 BS - sev. PJ. Weather clear + windy early in evening; overcast with snowflurries by 2100.

11 June 0830-1030. Watched the area north of No. B. R. -  
Weather lousy - overcast, strong east wind (15-30 mph). Little activity - WR, BS, PS.





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11 June Barrow, Alaska

1330-1600. Walked north half of Pitelka's plot. North beach ridge - display activity poor. Weather overcast 15-20 mph SE wind - light rain during late afternoon.

1930-2100. - Drum Area - sev. BS + SP; considerable display in these two species. Sev. old squares along Fuel Lake. Weather overcast - 10-15 mph wind.

12 June - 0830-1130. No. BR. - weather overcast but bright - light 5-8 mph northerly breeze. Bird activity not particularly good. - 1330-1630. - Quick trip to Gasline Ridge (sev. WR, BS) + then walked the north beach ridge near the gasline (-where new meteorology station is now situated). - again saw WR, sev. PS, RB, BS. Weather - mostly clear + sunny - light 3-10 mph north wind - some low fog + light sheet in late afternoon. Pitelka arrived at 1630 - went to field (BR) at 2100 - 2200. Clear. Sev. WR in wing.

13 June 1000-1230 - No. Beach Ridge - (Weather clear - sunny - 2-10 mph east wind. WR's common (1 nest found), BS, PS, RB. 1400-1700 - Drum Area - N. BR - AHCs WR - abundant weather same as a.m. 2000-2200 - North Area - weather same (cold!) Little activity - but PS activity was generally good. 1 S.O. nest proceeding rapidly - furnace now 90% bare. 1st Rannabuk flown on beach ridge.



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14 June Barrow, Alaska

0830-1230. Photographed PS on Pitelka's plot & then walked to north beach ridge - PS activity good, little WTR. 2 Buff-breasted Sdp. on No. B.R. near 4 drains. - Weather clear - light (5-10 mph) - light wind. 1430-1730. - No B.R. - weather same, except wind 10-15 mph. Saw more buff-br. - white-rumps not very active.

15 June 0815-1130. No. B.R. mostly photographing buff-breasted Sdps - PS & watching WTR's. Weather same as yesterday - clear - sunny - windy (8-12 mph). 1430-1800. Went to Gastri ridge - collected 2 pairs of WTR - little activity. - walked polygons & dunes to south - 2 Buff-br. - sev. RB (1 imm) & numerous ♂ & few ♀ PS. Weather about same, wind increase & speed. 2030-2230. Walked part of No. B.R. - with E.A.P. & Maclean - watched buff-breasts which were common.

16 June 0900-1200. - No. Beach Ridge : 1430-1800. No. on Pitelka's plot & No. B.R. - morning, some activity of buff-breasts & WTR - occ. PS. Weather clear - strong (15-20 mph) in a.m. - somewhat over in afternoon. Under no snow for long - except along the edge of central marsh in the shelter of the beach ridge & under snow in some pools & polygon troughs. Fog in late evening



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17 June Barrow, Alaska

0900-1230. No. beach ridge - fog - variable  
thunder. Light NW wind (5-10 mph) - trail  
some tape recorder - but used over for string.

Buff-breast common - 2 new WR. nests.

1430-1800. No. BR - little activity: weather same -  
light wind. - evening in lab.

18 June 0830-1200. : 1400-1800. - No. Beach Ridge. mostly  
east of Minnet. (= white-rump sector) - WR active -  
nest one - but not near 4 barrels. -

Buff-breast noted. Weather - overcast  
foggy, misty - some sun. - Light (5-10<sup>mph</sup>) wind.

2030-2330 - Gasline Ridge - weather, partly clear - windy.

19 June 0830-1200 - No. B.R. + Drum Area. 1330-1730. -

Both Areas - insect high + Gasline Ridge. Weather  
overcast - 5-15 mph "breeze". White-rump activity  
decreasing - group 1 pectorals present. Evening in  
lab.

20 June 0930-1200 N.B.R. - mostly west of Gasline + to  
south. - pectoral + some buff-breast activity.

Weather - overcast - 10-15 mph - N-NE wind  
- cold. In afternoon - dropped at No. end /

Pitkin's Plot - walked to Minnet -  
little bird activity - weather same

No. Beach Ridge in ~~morning~~ evening - Buff-breast  
activity increasing.

21 June Morning in lab. Afternoon with FAP on beach ridge  
+ Gasline ridge - checking Buff-breasts - 1 nest



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21 June Barrow, Alaska

of this species on beach ridge - with 1 egg. In evening - Maclean & I went to the No. B.R. to check on Buff-br. & WR. - identified against cold east wind (5-15 mph).

22 June - 0500-0715 - No. B.R. - recorded WR + PS - light north-east wind - snow on ground & falling during early period but melting rapidly by 0700. 0900-1130. No. B.R. - camp. WR activity variable for area & area. Pectorals are flocking in increasing numbers. Weather partially clear, only a light NE wind. In afternoon to micromet section of br + to s.w. end of Pitelba's Plot. Weather clear - light NE breeze. In lab in the evening.

23 June - 0830-1200. No. Beach Ridge - Weather overcast 3-10 mph Northw. breeze - WR activity good - little Buff-br. activity. Shorebird display has decreased markedly in the last 2-3 days. 1500-1730. No. Beach Ridge - down area. Evening in lab.

24 June 0930-1230. No. B.R. Bird activity decreasing markedly - some FS + WR display but no BS or RE. Weather overcast - occas. drizzle, cold NW wind (5-15 mph). 1600-1800. Gasline Ridge - PS & Buff-br. - few white-rumps. - Weather sun. Evening in lab.





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25 June Barrow, Alaska

Mackin + I went to Ikroavik 1400-1730. -  
 Then Footprint (3 knots, plus 150-60 PS,  
 sev. Phalaropes (1 Northern), - Census at  
 where sev. Buff-breasts BB, etc. - even  
 noted but activity seems low. Several  
 more BB were seen to the south along the  
 same ridge - at south end of 140 - 7+ PS /  
 where just nesting - sev. young of Brent -  
 Scattered Arctic Tern. Snow Geese + Pinnipeds  
 layers see frequently. - Weather overcast -  
 snow falling off for all day long. Frost  
 froze last night / even the large ones +  
 remained frozen until late morning  
 now. Lemmings signs were generally  
 good - most / it was the winters - little  
 fresh activity.

26 June - 1000 - 1230 - No. BR - 1300 - 1800. Gasline + No. Reed  
 Ridge. Bird activity, lower than previous  
 week - Weather overcast, wind 0-5 mph -  
 No. In evening to Pitelka's plot - several  
 BB still displaying - Weather foggy, by 5  
 went! 11th Nov. was. Reached BB.

27 June 0500-0715 - No. BR - sandrecovery. Weather clear; no  
 wind. 0930-1200 - No. BR - Gasline ridge.  
 1500-1730 No. BR, weather remained clear -  
 but light no wind blew during most of  
 day. Bird activity low.



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27 June Barrow, Alaska

2100-2200 - still clear - but slight wind. -  
little bird activity; 1 WR chase, sev. PS chase.  
With this warm day - large numbers of Chionochloa  
Aeb were present in the tundra.

28 June Morning in lab. 1330-1700. No. B.R. Bird activity  
low, especially Pectorals. WR's only at beach &  
beach ridge & near microwave. Weather clear - 5-10  
mph NW wind. 2000-2200: Gasline & B.R. -  
wind 5-10 mph - west. - Ad. Tipulated (-Tipula)

29 June 0930-1200. No. B.R. - several flocks of WR, very few  
Pectorals. 1400-1700. NBR - little activity. Weather  
clear all day - 10-15 mph - westerly. Evening  
Seminar by Dr. G. Dulos Hanna

30 June 1000-1200 - in microwave sector / b.r. - little activity -  
checked nests - saw 1 WR chase. 1400-1700. - P. Lani  
plot - collected sev. buff-breasts. Weather clear -  
5-15 mph NE wind.

1 July 0930-1200. No. B.R. - microwave tundra. Weather -  
partly cloudy & misty. 1430-1800. No. ad / saw  
B.R. & N.B.R. Saw WR chase, - 1 WR  
with clear - every thing is quiet - most PS  
have left - 1 host again heard today.  
Weather same. Gave Seminar at ARL  
This evening.

2 July 0930-1200 - No. B.R. - checked WR nests, - 1400 -  
1600 - Gasline Ridge - little activity. Weather  
Weather clear - light NE-NW wind - mids - 11059-1717.











